Wood at its best

SWISS KRONO

GERMANY

EN

SWISS KRONO OSB

Complete OSB Portfolio

CONTENTS

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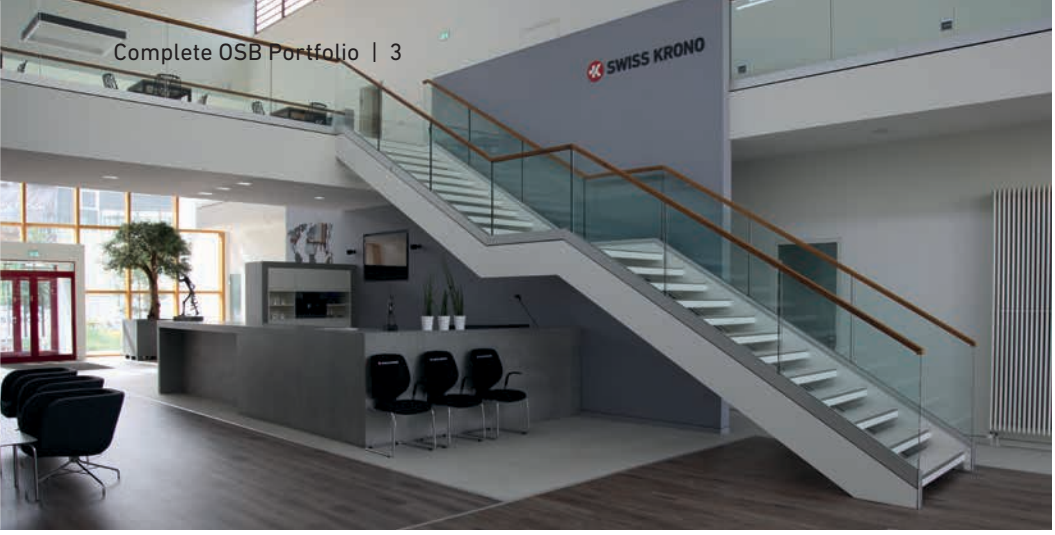


SWISS KRONO

SWISS KRONO OSB:
Innovation and Respect for Nature

SWISS KRONO:
Strong with Engineered Wood

The SWISS KRONO Group ranks among the world's leading makers of engineered wood materials. Despite our products' diversity, they are all equal in one respect: their quality is consistently first-class.

Our committed, highly professional staff produce environmentally superb engineered wood products at ten plants in eight countries (Switzerland, Germany, France, Poland, Ukraine, Russia, the USA and Hungary), setting international standards as members of a united corporate family.

We offer customer-oriented solutions with innovative, eco-friendly products backed by comprehensive advice and support. While meeting our responsibilities to society, we use a natural resource – wood – to create bespoke products.

Innovation:
Getting Better All the Time

Every day we work to make our product portfolio even more innovative, functional and conducive to healthy living. One of the goals we keep firmly in our sights is environmental protection. We're naturally also business-minded – while at the same time attaching great importance to reducing environmental burdens. In connection with all production processes and new products, we continually ask ourselves, "could this be done even better?"
And we aren't satisfied until we achieve the best possible results and can say with confidence that "yes, buildings can be even healthier!"

SWISS KRONO TEX GmbH & Co. KG in Heiligengrabe, Germany

The employees of the SWISS KRONO Group's German operation have led the way in advancing environmentally friendly building with SWISS KRONO OSB (oriented strand board). The SWISS KRONO OSB/F**** boards manufactured in Heiligengrabe have even been certified for use in food packaging.

Engineered Wood Products: Innovation & Respect for Nature

Made in Germany

SWISS KRONO OSB:
an innovative engineered wood product

swisskrono.de

DELIVERY PROGRAMME

SWISS KRONO OSB

	Format [mm]	Thickness [mm] 9	10	12	15	18	22	25	30	40
		Quantity per pallet								
SWISS KRONO OSB/3 EN300 square-edged ContiFinish®	2500 x 1250	100	*	76	60	52	42	38	*	*
	2070 x 2770			36	30	26				
	2650 x 1250			*	60	*				
	2800 x 1250			*	60	*				
	3000 x 1250			*	60	*				
	5000 x 1250			36	30	26	22			
	5000 x 2500				16	14	12			
SWISS KRONO OSB/3 EN300 T+G ContiFinish®	2500 x 675 T+G on all 4 edges			78	60	52	42	38	32	
	2500 x 1250 T+G on all 4 edges			*	60	52	42	38		
	6250 x 675 T+G on 2 edges						22	18		
SWISS KRONO OSB/3 EN300 T+G Sanded on both sides	2500 x 675 T+G on all 4 edges				60	52	42	38		
SWISS KRONO OSB/F** BAZ square-edged** ContiFinish®, German technical approval Z9.1-618	2500 x 1250			76	60	52	42	*	32	
	2650 x 1250			76	60					
	2800 x 1250			76	60					
	3000 x 1250			76	60					
SWISS KRONO OSB/F** BAZ T+G** ContiFinish®, German technical approval Z9.1-618	2500 x 675 T+G on all 4 edges			*	60	52	42	38	32	
	2500 x 1250 T+G on all 4 edges			*	60	52	42	38		
SWISS KRONO kompaktholz, T+G ContiFinish®	2050 x 675 T+G on all 4 edges			78	60	52	42	38		
OSB/3 sensitiv EN300, square-edged ContiFinish®	The current delivery programm is available at swisskrono.de									
OSB/3 sensitiv EN300, T+G ContiFinish®	The current delivery programm is available at swisskrono.de									
SWISS KRONO OSB/SF-B, EN300 T+G ContiFinish®	The current delivery programm is available at swisskrono.de									
SWISS KRONO OSB/4 BAZ sanded, German technical approval Z9.1-503	15,000 x 2800							30 per lorry		
	18,000 x 2800							25 per lorry		
MAGNUMBOARD® OSB RAW BOARD										
SWISS KRONO LONGBOARD OSB	6501 mm to 18,000 mm				**	**	**	**		
SWISS KRONO OSB/3 EN300	6501 mm to 18,000 mm				**	**	**	**		
SWISS KRONO OSB/F**** BAZ										

* On request

** Minimum order: one truckload per thickness and format

Special formats and thicknesses available on request

SWISS KRONO

SWISS KRONO OSB

	Format [mm]	Thickness [mm] 9	11	12	15	18	20
		Quantity per pallet					
SWISS KRONO OSB/3 CertMark, T+G With green plastic spring on two edges **Standard**, ContiFinish®	3600 x 900					28	
SWISS KRONO OSB/3 CertMark, T+G With blue plastic spring on two edges **Anti-termite,** ContiFinish®	3600 x 900					28	
SWISS KRONO OSB/F** JAS** ContiFinish®	1820 x 910	60	70	77	60		
	2440 x 910	60		55			
	2745 x 910	60					
	2795 x 910				36		
	3030 x 910	55					
	3050 x 910	60					
SWISS KRONO OSB anti-termite, square-edged, ContiFinish®	Acc. to customer specifications						
SWISS KRONO OSB anti-termite, T+G ContiFinish®	Acc. to customer specifications						
SWISS KRONO OSB QuicklyBoard, square-edged, ContiFinish®	2500 x 1250						46

Special formats and thicknesses on request

SWISS KRONO MDF

SWISS KRONO MDF - raw	Acc. to customer specifications, thicknesses from 6 to 38mm are possible	
SWISS KRONO MDF - Moulding	Acc. to customer specifications, thicknesses from 6 to 19mm are possible	
SWISS KRONO MDF - Panel Quality	Acc. to customer specifications	
SWISS KRONO HDF	Acc. to customer specifications	
SWISS KRONO DP50, T+G Roofing Board	2500 x 675 LiquiSafe, T+G on all 4 edges	60
SWISS KRONO WP50, square-edged Wall Board	2800 x 1247	60

BLUE ANGEL THE GERMAN ECOLABEL

www.blauer-engel.de/uz76

- low emissions
- wood from sustainable forestry
- no adverse impact on health in the living environment

As of October 2019, SWISS KRONO OSB/3 EN300, SWISS KRONO OSB/4 BAZ and SWISS KRONO OSB/F**** produced at the SWISS KRONO GROUP's facility in Heiligengrabe in the German state of Brandenburg all bear the "Blue Angel" ecolabel.

Did You Know?

At our production facility in Heiligengrabe, Germany, all combustible production waste such as sanding dust and leftover chips is used to fuel a special on-site power plant. The electricity generated is used on the premises or sold to the grid as „eco-power“.

Built by MAX-HAUS based in Marienwerder, Germany

SWISS KRONO OSB: High Tech Meets Natural Wood

From Trees to State-of-the-Art Engineered Wood Products

SWISS KRONO OSB (OSB stands for “oriented strand board”) is formed from long, slender chips (called strands) of wood which are aligned in layers running crosswise to one another. It’s a synthesis of a natural raw material and innovative technology. We use the world’s most advanced continuous OSB production systems to make our highly versatile SWISS KRONO OSB boards, using only fresh thinnings from sustainably managed forests.

Multiple Layers for Maximum Strength

Every SWISS KRONO OSB product consists of three layers: a core layer sandwiched between two outer layers. To optimally stabilise the finished boards, the natural wood strands of the cover layers are aligned in the direction of production. The strands of the core layer, which actually consists of two plies, run at right angles to the outer layers. This structure maximises the flexural strength of all SWISS KRONO OSB products.

Formaldehyde-Free Binders

Before being layered and pressed at high pressure and temperature, the flakes are mixed with a small amount of completely formaldehyde-free bonding resins. SWISS KRONO OSB products contain only the formaldehyde that naturally occurs in the wood flakes.

Conti-Roll® Press for Top Quality

Our leading-edge Conti-Roll® press turns out SWISS KRONO OSB products in a continuous process, which lets us guarantee first-class quality with improved thickness tolerances. The boards are also given a high-quality finish: pressing creates a thin surface layer consisting of bonding and wood resins. Water rolls right off this water- and moisture-repellent ContiFinish® surface, allowing the boards to withstand brief exposure to moisture without suffering damage.

Monte Mare Sauna at Lake Tegernsee, Germany

SWISS KRONO OSB: the Original Product for Healthy Living

OSB Expertise Since 1997

The SWISS KRONO Group blazed new trails in 1997 when it began producing storey-high formats on the world's first Conti-Roll® OSB system at KRONOPOL in Żary, Poland. And SWISS KRONO OSB has been the market standard ever since. It is currently manufactured in Germany, Poland, France, Hungary and Ukraine.

Always Ahead of the Game

At SWISS KRONO we have a long tradition of innovation. One good example is our officially approved SWISS KRONO OSB boards with a length of 18 metres. Having invested in a custom-built long-board stacker for the Heiligengrabe, Germany plant, the SWISS KRONO GROUP is now the world's only producer of OSB boards up to 18 metres long.

SWISS KRONO OSB/3 and SWISS KRONO OSB/F**** can both be produced as **LONG**BOARD OSB with lengths from 6.501 up to 18 meters.

The main benefit of using these very long boards with a surface area of up to about 50m^3 is that they allow the construction of buildings with a minimum of joints. This results in lasting airtightness, improved acoustic insulation and greater energy efficiency.

The use of large-format prefabricated modules also considerably speeds up construction projects so buildings can be occupied and used that much sooner.

SWISS KRONO OSB/4, the raw board on which the **MAGNUM**BOARD® OSB building system is based, is also produced in lengths up to 18 metres.

Four Stars: Absolutely Food-Safe

According to a technical expertise published by the Food Process Engineering section of the Institute of Process Engineering in Life Sciences in Karlsruhe, Germany, SWISS KRONO OSB/F**** BAZ ("F four stars") is also suitable for food packaging. It is well below the strict 0.03ppm emissions ceiling which leading German associations are calling for, as only pinewood and completely formaldehyde-free binders are used to produce it. This also ensures that SWISS KRONO OSB/F**** is optimally suited for modern, eco-friendly timber construction and furniture production.

Built by MAX-HAUS
based in Marienwerder, Germany

Applications

- Residential buildings (individual homes and blocks of flats)
- Commercial construction
- Industrial buildings
- Vertical extensions
- Urban infill projects
- Refurbishment to improve energy efficiency
- Modular and panelised construction

SWISS KRONO OSB: an Optimal Team Player

Environmental Friendliness

SWISS KRONO products predominantly consist of thinnings from sustainably managed forests. We have been certified for these responsible practices under the Pan European Forest Certification (PEFC™) scheme.

Roofs

SWISS KRONO OSB/3 and SWISS KRONO OSB/F**** are ideal for use in roofs. By serving as a water-vapour-impermeable, airtight layer, they permit secure, condensation-free constructions without the need for membranes. Water-vapour-permeable SWISS KRONO DP50 can also be used as under-roof boarding without requiring any additional vapour barriers. SWISS KRONO OSB also complies with standards for flat roof constructions. Compared to ordinary timber boards, it enables faster, easier assembly of large roofs.

Walls

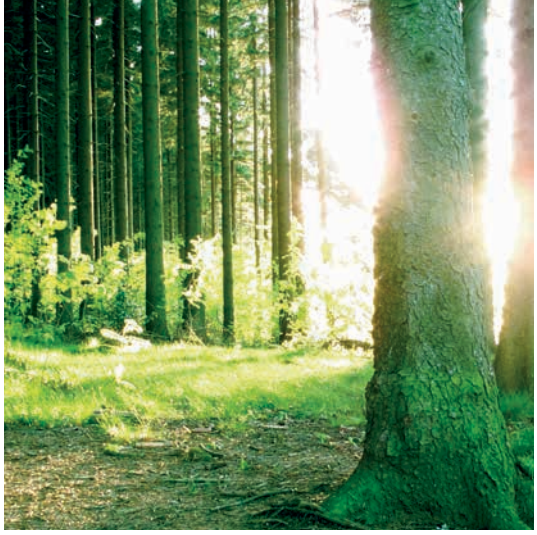
SWISS KRONO OSB/3 and SWISS KRONO OSB/F**** are ideal for creating reinforcing, water-vapour-impermeable and airtight layers in timber-frame and timber-panel construction. Storey-high formats minimise the need to cut boards to size while eliminating scrap. A storey-high version of SWISS KRONO WP50 is also available for use as water-vapour-permeable, reinforcing external boarding.

Ceilings

The high strength of SWISS KRONO OSB lets it be used cost-effectively for load-bearing and reinforcing constructions.

Fire Protection with SWISS KRONO OSB

SWISS KRONO OSB/3 and SWISS KRONO OSB/F**** products also meet the special requirements for materials used in fire-resistant constructions. For example, in order to meet the requirements for engineered wood boards specified by the DIN 4102-4 standard, SWISS KRONO intentionally produces SWISS KRONO OSB/3 with a density of at least 600kg/m^3.



Built by MAX-HAUS based in Marienwerder, Germany

SWISS KRONO OSB: the Sustainable Energy-Storing Product

Positive Environmental Balances

Besides their outstanding properties for constructive uses, SWISS KRONO OSB products also actively help protect the earth's climate. Each cubic metre of SWISS KRONO OSB stores about 1000kg of CO_2 and keeps it sequestered throughout the product's lifetime. The pinewood used for environmentally gentle production comes from sustainably managed forests in the German states of Mecklenburg-Western Pomerania and Brandenburg, and most of it is PEFC™-certified.

Wood and engineered wood products are the only load-transferring materials which store more energy than it takes to produce them. All SWISS KRONO engineered wood products are also classified as components with a negative "global warming potential" (GWP). The carbon stored in them isn't released again until their useful life comes to an end. And history teaches us that optimally planned and built structures consisting of natural wood and sustainably produced engineered wood can last for centuries.

Guilt-Free Driving with SWISS KRONO

The example calculation below shows how SWISS KRONO products can reduce your personal carbon emissions to offset the CO_2 emitted when you drive your car.

It can take the following amounts of natural and engineered wood to build an average single-family home:

Solid wood and construction timber:	10 cubic metres
SWISS KRONO OSB:	12 cubic metres
SWISS KRONO DP50:	4 cubic metres

Added together, this means that your home will store a total of 24,300 kilograms of CO_2. In return you could drive a VW Golf BlueMotion, which according to Volkswagen emits 99g of CO_2 per kilometre, a distance of about 245,454km with a clear conscience.

Built by MAX-HAUS
based in Marienwerder, Germany

Built by Henri Vermot et Fils Sàrl based in Villers-le-Lac, France

Benefits at a Glance

- Suited for massive timber construction
- Excellent structural values
- Good thermal and acoustic insulation
- Direct finishing of interior surfaces (e.g. with plaster, wallpaper, paint, tiles etc.)
- EN 1995-1-2-compliant fire protection
- Flexible prefabrication without the need to follow a prescribed grid or layout
- Air- and windtight building envelopes
- High storage volume for a pleasant indoor climate

MAGNUMBOARD® OSB: the Modern Timber Construction System

MAGNUMBOARD® OSB is an officially approved, health-promoting massive timber construction system. In it, natural wood – a renewable resource – and innovative technology combine the benefits of single-skin massive construction with those of conventional wood construction to overcome drawbacks such as joints, heterogeneous materials, entrapped moisture and long completion times.

Prefabricated, extremely dimensionally stable walls, ceilings and roof sections measuring up to 18 by 2.8 metres can be easily and flexibly implemented in large formats, resulting in permanently windtight buildings with a minimum of joints.

Built by ERNE AG Holzbau based in Aargau, Switzerland

Thanks to extensive prefabrication, the **MAGNUM**BOARD® OSB system enables very fast erection of buildings with sophisticated modern architectures. It is convincing both as a complete building solution and in combination with other construction approaches.

The storey-high formats open up the possibility of constructing buildings with only a single **MAGNUM**BOARD® OSB panel across their entire length. The system delivers all of the benefits of massive wall, ceiling and roof assembly while having enormous potential for streamlining work and minimising costs. It is also suitable for taller and subterranean buildings comprising larger units (building classes 4 and 5 in Germany).

MAGNUMBOARD® OSB panels can be directly coated or finished inside, for example with various kinds of plaster (e.g. Naturafix or Sto) or paint (e.g. Caparol). It is also possible to directly tile them with Ceresit construction adhesive. There is no need to cover with plasterboard first.

A Sturdy Basis: SWISS KRONO OSB/4

The basis for **MAGNUM**BOARD® OSB modules is SWISS KRONO OSB/4 boards measuring 18 x 2.8m with a thickness of 25mm. These have been approved for this use by the German building authorities owing to their superb technical properties, which are vastly superior to those of conventional OSB/4 boards as tested according to EN 300. SWISS KRONO OSB/4 is therefore an ideal basis for the **MAGNUM**BOARD® OSB building system. Licensees stack and bond between three and ten layers of OSB/4 and then shape them into bespoke wall, ceiling or roof modules. **MAGNUM**BOARD® OSB modules excel with jointless sanded OSB surfaces, high density, quick and easy installation, and a minimal tendency to swell or shrink.

Built by BALAZS Komforthaus
based in Windsbach, Germany

Applications

- Residential buildings (individual homes and blocks of flats)
- Commercial construction
- Industrial buildings
- Vertical extensions
- Urban infill projects
- Refurbishment to improve energy efficiency
- Modular and panelised construction

Built by BALAZS Komforthaus
based in Windsbach, Germany

Uses for **MAGNUM**BOARD® OSB and SWISS KRONO **LONG**BOARD OSB

The **MAGNUM**BOARD® OSB modules and those made with SWISS KRONO **LONG**BOARD OSB can be used extremely flexibly and lend themselves for a vast range of rapid dry construction applications.

Temporary Accommodation

Modular construction is a fast, eco-friendly and economic solution for temporary accommodation of many kinds that can be used for months or even years. The modules are very easy to dismantle and reuse elsewhere when no longer needed. Their thermal and acoustic insulation is significantly better than that of conventional metal and plastic containers. Prefabricated timber modules are increasingly being used to build residences, refugee shelters, school buildings, childcare centres, office complexes, hospitals and more.

Construction of New Residential Buildings

New buildings can be very quickly erected with timber elements, as the use of highly prefabricated panels greatly accelerates the process. Moreover, no time is lost waiting for installations to dry, so follow-on trades can start work right away. Complex floor plans, dormers and bay windows etc. can also be realised with comparatively little effort.

Vertical Extensions and Renovations

The large dimensions of the wall and ceiling units permit structures that transfer loads over a large area, making the system ideal for adding storeys and renovations to increase energy efficiency. In addition, as it is a dry system, it avoids stressing existing structures.

Industrial and Commercial Structures

For everything from day care facilities for children across office buildings to halls, elements made with SWISS KRONO OSB products have proved their worth in numerous projects. Fast assembly and reliable meeting of deadlines are advantages that owners and builders greatly appreciate. Users also benefit from a very pleasant indoor climate in year-round.

Urban Building

Housing is becoming scarce in many cities, making it increasingly important to find and build on remaining empty lots. Timber modules are excellently suited for meeting the associated challenges. They largely eliminate the need for large construction sites with areas for storing materials, as they are supplied whole and ready for installation. Plus, the short assembly times reduce annoyances such as road closures and noise.

Built by BALAZS Komforthaus based in Windsbach, Germany

Built by Henri Vermot et Fils Sàrl based in Villers-le-Lac, France

Finishing of **MAGNUM**BOARD® OSB: No Extra Boards Needed

Plaster, wallpaper, tiles or paint: interior surfaces made of SWISS KRONO **MAGNUM**BOARD® OSB can be directly finished without the need to cover them with plasterboard etc. first. This saves work, time and money, in addition to opening up a vast range of possibilities for creative interior design.

Direct Interior Finishing of SWISS KRONO **MAGNUM**BOARD® OSB

Whereas it is still necessary to cover glulam with gypsum plasterboard or the like before applying paint, tiles, wallpaper or plaster, SWISS KRONO **MAGNUM**BOARD® OSB does away with this extra step. This is because of the sanded surfaces of the OSB boards, which can be quickly and easily finished. Another benefit of using storey-high formats is that walls contain no joints at all. Joints, which are an inevitable side-effect of other engineered wood and glulam products, cause unsightly cracks when directly finished. This makes it essential to cover them first with plasterboard to serve as a buffer. Using SWISS KRONO **MAGNUM**BOARD® OSB accelerates the progress of work and slashes costs by eliminating this intermediate step: interior finishing can commence as soon as the modules have been installed.

The Benefits at a Glance:

- No need to cover with gypsum plasterboard before finishing
- Cost-effective, faster and less work-intensive
- Flexible finishing with interior plaster, paint, wallpaper or tile

Here is a comparison of the work required to plaster an exterior and interior wall:

SWISS KRONO **MAGNUM**BOARD® OSB	**Glulam**

Work for an interior wall (both sides)

- 2x apply wash and insulating primer
- 2x apply interior plaster
- 2x paint (if required; coloured plaster may be used instead)
- 2x cut gypsum plasterboard sheets to size and attach them
- 2x fill and sand joints and the fasteners for the plasterboard
- 2x apply primer
- 2x apply interior plaster
- 2x paint (if required; coloured plaster may be used instead)

Work for an exterior wall (inside only)

- 1x apply wash and insulating primer
- Additional work at window jambs
- 1x cut plasterboard sheets to size and attach them
- 1x fill and sand joints and the fasteners for the plasterboard
- Additional work for corner rails and window jambs
- 1x apply primer and plaster

This list makes it quite clear that it is considerably more laborious and time-consuming to coat glulam with plaster than SWISS KRONO **MAGNUM**BOARD® OSB. Not only does it take longer, it is actually more costly. Factoring in the required materials, the total expenditure is significantly greater.

Built by Paul Riegel Foundation (HARIBO) in Bonn, Germany

Did You Know?

Due to the formaldehyde-free PMDI binders used to produce them, SWISS KRONO OSB/3 and SWISS KRONO OSB/F**** are suitable for use in flat roofs while following the guidelines of the German carpentry organisation “Holzbau Deutschland – Bund Deutscher Zimmermeister” and the German Central HVAC Association (ZVSHK).

SWISS KRONO

Topics, Building Components & Applications

Flat Roofs: Economic Constructions

Flat roofs are horizontal or only slightly inclined building tops. Their entire surface area is covered by a waterproof layer. Modern timber houses allow the installation of economic flat roof constructions which are largely prefabricated and rest on widely spaced rafters.

SWISS KRONO OSB/3 and SWISS KRONO OSB/F**** are predestined for use in many flat roofs. SWISS KRONO products let you create durable constructions that meet thermal, acoustic and ventilation requirements while also complying with the DIN 68800 standard.

Gaining Space by Adding a Storey

When there is no room left to expand laterally, for example in cramped inner cities or when there is no desire to sacrifice all or part of one’s beloved garden, it is still possible to gain extra living space. The solution is to build upwards and add another storey. Just how easily, fast and neatly this can be done is shown by the picture of a SWISS KRONO reference project on the right.

In 2009, the Gottfried family in Röslau, Germany decided to upwardly extend an annex which they had previously built onto their single-family house, while also renovating the entire structure. They wanted to complete the project quickly without letting the construction work introduce any damp into the existing building. They chose a system involving engineered wood products from SWISS KRONO.

Fast to Lay and Free of Chemicals

SWISS KRONO OSB/3 and SWISS KRONO OSB/F**** meet the requirements of various standards due to the moisture-resistant PMDI binders used to produce them. Outstanding results have been obtained with these materials in a large number of flat roof constructions. In contrast to the engineered wood products ordinarily used in flat roofs, SWISS KRONO OSB/3 and SWISS KRONO OSB/F**** do not require any chemical treatments.

Another advantage is that SWISS KRONO OSB is much faster to lay than conventional narrow roof boards, and is also far less prone to swelling and shrinkage than solid wood. An excellent moisture barrier can be ensured by installing it together with an insulation layer.

The Gottfrieds’ detached single-family home in Röslau, Germany

Built by MAX-HAUS based in Marienwerder, Germany

Built by Terhalle Objektbau Bauträger based in Ahaus-Ottenstein, Germany

Topics, Building Components & Applications

Flat Roofs Can Even Be Planted

A green or living roof is an attractive alternative to a conventional garden. It is a way to recover a piece of nature in an urban area. Apart from environmental benefits, planting is an effective way to protect a roof from temperature extremes and wind. It also keeps heat in and noise out. The latest construction standards and the current state of technology allow the use of SWISS KRONO OSB in flat roofs, and recent tests have shown that it is also suitable for implementing various kinds of green roofs.

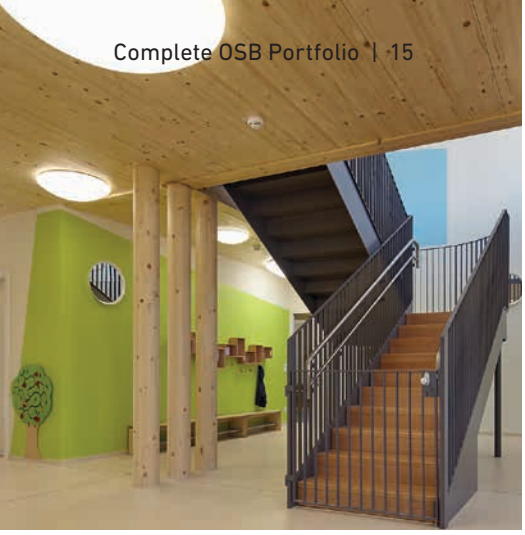
Built by Sauter Zimmerei-Holzbau based in Balingen, Germany

Test Result: Durable and Robust

Both trials and statistical evidence have made it quite clear that when low-pitch timber roofs are made of eco-friendly building materials and include an upper vapour-proof seal, their hygrothermal properties (i.e. how heat and moisture move through them) make them non-polluting, forward-looking constructions that fully meet market expectations. When properly planned, unventilated single-skin wood roofs that ideally manage moisture can be built with SWISS KRONO OSB.

Among the OSB constructions that have been tested and shown to be durable and robust while adequately meeting safety requirements are a green roof version. The most significant test results were published by the Leipzig Institute for Materials Research and Testing (MFPA).

The calculations are described in EN 15026. A well-known and frequently used software program for this is WUFI, which was also used in the research project at the MFPA.



Built by Paul Riegel Foundation (HARIBO) in Bonn, Germany

Topics, Building Components & Applications

Naturally Airtight

SWISS KRONO OSB/3 and SWISS KRONO OSB/F**** are absolutely airtight – with no if's, and's or but's. Alongside good thermal insulation, airtightness is an important requirement for modern, energy-efficient construction. Many countries now require houses to be provided with an airtight layer – in Germany, this is prescribed by the Energy Saving Ordinance (EnEV 2016). The heat-transmitting outer envelope (including joints) must be sealed in accordance with acknowledged technical principles in order to make it lastingly airtight.

Tried and Tested

SWISS KRONO TEX GmbH & Co. KG is one of Europe's most successful producers of OSB boards bonded without formaldehyde. These high-tech natural-wood products are also ideal for making airtight building envelopes, as has now been officially confirmed. HFB Engineering GmbH, an approved and acknowledged testing and development institute in Leipzig, Germany, used an approach based on EN 1026 to measure the airtightness of SWISS KRONO OSB/3 and SWISS KRONO OSB/F****. Four different thicknesses were tested: 10, 12, 15 and 18 millimetres. At a pressure differential of 50 pascals, an average air permeability (pressure/suction) of no more than 0.14 [m^3/hm^2] was determined for all of the board thicknesses.

Practical Example

Assuming this value, consider a house that was built by an employee of SWISS KRONO TEX GmbH & Co. KG:

Total area of exterior walls and roof:	413.3m^2
Total area of all windows:	51.7m^2
SWISS KRONO OSB/3 area:	361.6m^2

At a pressure differential of 50 pascals, the following amount of air flows through the boards: 361.6 x 0.14 = 50.6m^3/h. The total contained volume of the house is 724.50m^3. This yields an air exchange rate of n50 = 50.6 / 724.5 = 0.07 [h-1], thanks to SWISS KRONO OSB/3 and SWISS KRONO OSB/F****.

Buildings with ventilation systems may not exceed an n_{50} value of 1.5 [h-1]. And SWISS KRONO OSB/3 and SWISS KRONO OSB/F**** excel with a mere five percent of this, which is negligible. Even in passive houses, which may not have an n_{50} value of more than 0.6 [h-1], SWISS KRONO OSB/3 and SWISS KRONO OSB/F**** contribute no more than 12% of the total.

Built by Hubert Schmid Bauunternehmen based in Marktoberdorf, Germany

The SWISS KRONO Feel-Good House

is contemporary, ready for the future and energy-efficient.

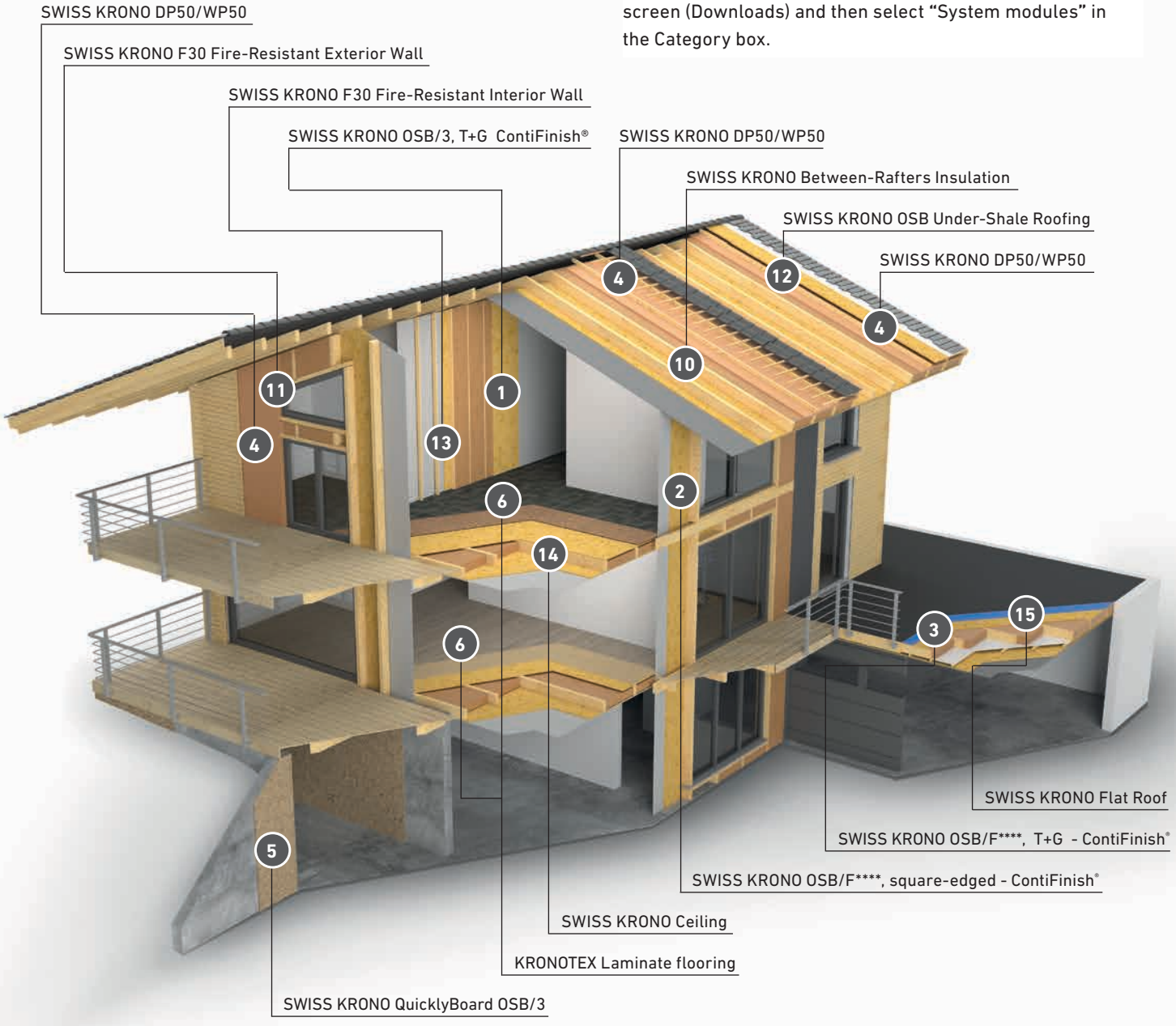
The solution to future challenges for modern, energy-efficient construction and renovation is simple: highly specialised, coordinated product systems from SWISS KRONO that result in optimally insulated, architecturally attractive feel-good houses.

Every single product of the SWISS KRONO feel-good programme excels with outstanding stability, insulating performance and eco-friendliness. A SWISS KRONO roof system alone can knock 30% off heating costs. At the same time, the carbon stored in the wood – a natural, renewable raw material – makes an active contribution to protecting the environment.

All SWISS KRONO system modules are intelligently designed down to the tiniest detail and have proved themselves in practice. Because the roof, wall and ceiling elements are largely prefabricated, it takes only between one and three days to assemble a raintight SWISS KRONO feel-good house. The exclusive use of eco-friendly wood-based materials eliminates drying phases and the costly waits they entail.

The various SWISS KRONO system modules are freely combinable and also suitable for meeting special requirements such as fire safety.

A selection of our intelligent SWISS KRONO system modules is shown on the next page. You can find more system versions, information on use and detailed data on our SWISS KRONO **system products** on the internet at **www.swisskrono.de**. Click the top tab on the left of the screen (Downloads) and then select “System modules” in the Category box.

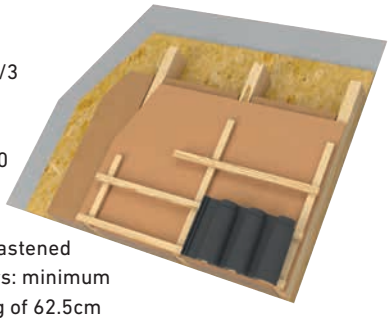


Built by Bema based in Wald-Michelbach, Germany

10 SWISS KRONO Between-Rafters Insulation System module K01018

From the inside out:

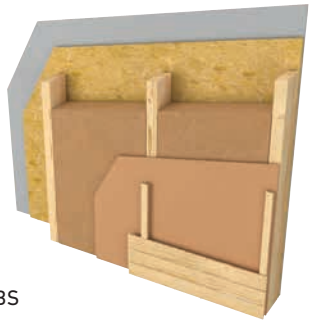
- 12.5mm of gypsum fireboard
- 18mm of SWISS KRONO OSB/3 or SWISS KRONO OSB/F****
- Rafters / insulation
- 15mm of SWISS KRONO DP50
- Counterbattens/battens F30-B acc. to DIN 4102-4, table 66, gypsum fireboard fastened at least every 400mm, rafters: minimum width of 40mm, max. spacing of 62.5cm



11 SWISS KRONO F30 Fire-Resistant Exterior Wall System module K01023

From the inside out:

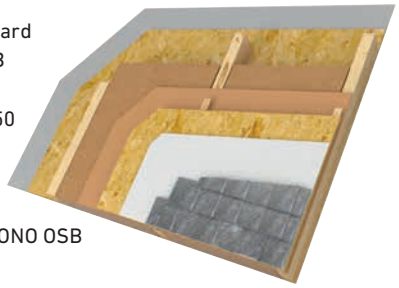
- 9.5mm of plasterboard
- 12mm of SWISS KRONO OSB/3 or SWISS KRONO OSB/F****
- Solid construction timber / insulation
- 15mm of SWISS KRONO DP50 or WP50
- Counterbattens
- Curtain wall, e.g. clapboard F30-B acc. to AbP P-3014/7701-MPA BS



12 SWISS KRONO OSB Under-Shale Roofing System module K01333

From the inside out:

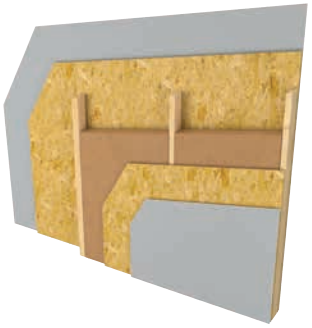
- 9.5mm of gypsum plasterboard
- 15mm of SWISS KRONO OSB
- Insulation / rafters
- 15mm of SWISS KRONO DP50
- 30mm of counterbattens (ventilated cavity with a max. length of 15m)
- At least 22mm of SWISS KRONO OSB
- Membrane
- Shale roofing



13 SWISS KRONO F30 Fire-Resistant Interior Wall System module K01022

From the inside out:

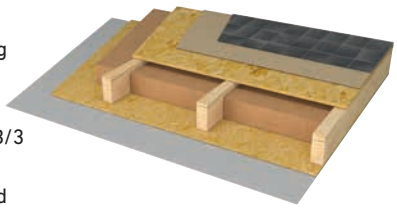
- 9.5mm of plasterboard
- 15mm of SWISS KRONO OSB/3 or SWISS KRONO OSB/F****
- 80mm of solid construction timber / insulation
- 15mm of SWISS KRONO OSB/3 or SWISS KRONO OSB/F****
- 9.5mm of plasterboard F30-B acc. to DIN 4102-4, table 50



14 SWISS KRONO Ceiling System Module K01028

From the top down:

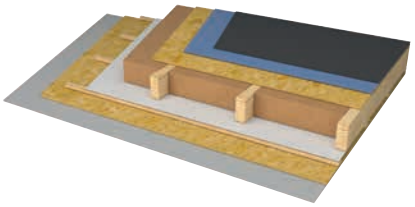
- KRONOTEX laminate flooring
- 5mm of insulation for reducing impact sound
- 22mm of SWISS KRONO OSB/3 or SWISS KRONO OSB/F****
- 200mm of rafters, separated with 160mm of insulation
- 18mm of SWISS KRONO OSB/3 or SWISS KRONO OSB/F****
- 9.5mm of plasterboard



15 SWISS KRONO Flat Roof System Module K01310

From the top down:

- Membrane
- Structured separation layer
- At least 22mm of SWISS KRONO OSB/3 or SWISS KRONO OSB/F****
- Insulation / rafters
- Moisture-adaptive vapour barrier
- 24mm installation layer (uninsulated)
- 15mm of SWISS KRONO OSB
- 12.5mm of plasterboard



Various SWISS KRONO system modules have been combined in the SWISS KRONO feel-good house shown on the left. Here is an overview of the SWISS KRONO products used in them:

1 SWISS KRONO OSB/3, T+G ContiFinish®
2 SWISS KRONO OSB/F****, square-edged - ContiFinish®
3 SWISS KRONO OSB/F****, T+G - ContiFinish®
4 SWISS KRONO DP50/WP50
5 SWISS KRONO QuicklyBoard OSB/3
6 KRONOTEX Laminate flooring

Applications

- Interior and exterior reinforcing wall boarding
- Load-bearing ceiling boarding
- Roof boarding (instead of raw timber)
- Wall cladding
- Floors
- Packaging
- Shelves
- Furniture
- Doors

Did You Know?

SWISS KRONO OSB/3 falls within utilisation classes 1 and 2 as defined by EN 1995-1-1 and is therefore suitable for moisture-prone rooms as well as exterior uses, provided that it is not exposed to the weather.

SWISS KRONO OSB/3 EN300, square-edged

ContiFinish®, made with formaldehyde-free binders, CE, PEFC ™

The High-Performance Classic All-Rounder

SWISS KRONO OSB/3 is the ideal engineered wood product for load-bearing and reinforcing applications, being CE-certified according to EN 13986 and produced in compliance with EN 300. Featuring a ContiFinish® surface, this sturdy board is also excellently suited for load-bearing applications in moisture-prone rooms such as kitchens and bathrooms.

BLUE ANGEL THE GERMAN ECOLABEL

www.blauer-engel.de/uz76

- low emissions
- wood from sustainable forestry
- no adverse impact on health in the living environment

CE 13 1034 EN 13986

PEFC PEFC/ 04-35-0010

EPD

MANAGEMENT SYSTEM CERTIFICATION DNV·GL ISO 9001 ISO 14001 ISO 50001

High Strength and ContiFinish® Surface

Designed to withstand normal stresses, SWISS KRONO OSB/3 delivers outstanding value for money. Produced exclusively with formaldehyde-free binders, these robust boards contain only the formaldehyde that naturally occurs in wood. Consequently, their formaldehyde emissions not only comply with the stipulations of the E1 guideline, but are also significantly less than the much stricter ceiling of 0.03ppm that various associations (e.g. DHV and RAL in Germany) are calling for. Eco-friendly SWISS KRONO OSB/3 boards are also used in packaging and furniture.

Highlights of modern architecture: implemented with SWISS KRONO engineered wood products

SWISS KRONO

Technical Data Characteristic values acc. to EN 13986

For load-bearing, non-load-bearing and reinforcing purposes in dry and moisture-prone areas

Strand direction			**Major axis**			**Minor axis**	
Nominal thickness [mm]	**d**	**6-10**	**>10-18**	**>18-25**	**6-10**	**>10-18**	**>18-25**
Strength values [N/mm²] **Stresses**							
Bending	$f_{m,k}$	18.0	16.4	14.8	9.0	8.2	7.4
Compression	$f_{c,90,k}$		10.0			10.0	
Shear	$f_{v,k}$		1.0			1.0	
Plate loads							
Bending	$f_{m,k}$	9.9	9.4	9.0	7.2	7.0	6.8
Tensile loads	$f_{t,k}$	9.9	9.4	9.0	7.2	7.0	6.8
Compression	$f_{c,k}$	15.9	15.4	14.8	12.9	12.7	12.4
Shear	$f_{v,k}$		6.8			6.8	
Stiffness values [N/mm²] **Stresses**							
Modulus of elasticity	E_m [a]		4930			1980	
Shear modulus	G_r [a]		50			50	
Plate loads							
Modulus of elasticity	$E_{t/c}$ [a]		3800			3000	
Shear modulus	G_v [a]		1080			1080	

[a] The characteristic stiffness values E_{05} and G_{05} are calculated as follows: E_{05} = 0.85 x E and G_{05} = 0.85 x G

Building physics and general values							
Bulk density acc. to EN 323	m	≥ 600 kg/m³					
Length and width tolerance		± 3mm					
Squareness acc. to EN 324-2		2mm/m					
Max. deviations in board thickness		± 0.8mm (ContiFinish®)					
Tensile strength perp. to plane acc. to EN 319	perm. σ_{zy}	0.18	0.15	0.13	0.18	0.15	0.13
Thermal conductivity acc. to EN 13986	λ	0.13 W/mK					
Water vapour permeability	s_d	≥ 2.0m (12 to 25mm) - dry					
Thickness swelling acc. to EN 317		≤ 15%					
Coefficient of expansion for 1% change in wood moisture		0.03%					
Air permeability at 50 Pa		0.14 m³/hm²					
Waste code	EWC	03 01 05					
Emissions class		E1 – 100% formaldehyde-free binders (< 0.03 ppm)					
Emissions class / DIBt expertise		G-160-18-0001: Compliance with health protection requirements or building structures acc. to MVVTB 2017/1, Annex 8					
Environmental product declaration as per ISO 14205 and EN 15085		EPD-KRO-20150067-IBD2-DE					
Utilisation classes acc. to EN V 1995-1-1		1 + 2					
Reaction to fire performance class acc. to EN 13501-1		D - s2, d0					
Declaration of Performance no. acc. to EU construction products regulation		SKDE_OSB-3_CPR_2019_048_EN					

Note: The characteristic values are for structural calculations acc. to EN 1995-1-1 and EN 1995-1-2 (EC5).

Delivery Programme and Product Overview

Format [mm]	**Thickness [mm]**								
	9	**10**	**12**	**15**	**18**	**22**	**25**	**30**	**40**
2500 x 1250	•	*	•	•	•	•	•	*	*
2070 x 2770			•	•	•				
2650 x 1250			*	•	*				
2800 x 1250			*	•	*				
3000 x 1250			*	•	*				
5000 x 1250			•	•	•	•			
5000 x 2500				•	•	•			
6501 to 18000 (**LONG**BOARD OSB)				**	**	**	**		

* On request, ** Minimum order: one truckload per thickness and board size, Special formats and thicknesses available on request

Applications

- Floor renovation / dry floors / under dry screed
- Roof panelling (instead of raw timber)
- Reinforcement of roofs (application class 2 as per EN 1995-1-1)
- As load-bearing ceiling boards / interior constructions / decorative uses

Did You Know?

EN 13986 “Engineered wood panels for use in construction” has been incorporated into the legislation on building materials in Germany, making it unnecessary to obtain special permits.

SWISS KRONO OSB/3 EN300, T+G

ContiFinish®, made with formaldehyde-free binders, CE, PEFC ™

Quick to Lay with a Reinforcing Effect

With its water- and moisture-repellent ContiFinish® surface, SWISS KRONO OSB/3, T+G is specifically designed for use in moisture-prone rooms such as kitchens and bathrooms. It is CE-certified under EN 13986 and produced in accordance with EN 300. All four edges are shaped for tongue-and-groove joints, thus making this board extremely versatile.

Bending Resistance for Stability

SWISS KRONO OSB/3, T+G excels in a wide range of applications due to its high strength. Despite its relatively low weight, it achieves bending resistance values comparable to those of plywood. The high-quality ContiFinish® surface of the boards repels water.

Because it inhibits water vapour diffusion, when using this material to cover the insides of exterior walls in timber-frame houses there is no need to additionally seal it with a water-vapour-impermeable membrane.

BLUE ANGEL THE GERMAN ECOLABEL

www.blauer-engel.de/uz76

- low emissions
- wood from sustainable forestry
- no adverse impact on health in the living environment

CE 13 1034 EN 13986

PEFC PEFC/ 04-35-0010

EPD

MANAGEMENT SYSTEM CERTIFICATION DNV·GL ISO 9001 = ISO 14001 ISO 50001

Built by Sauter Zimmerei-Holzbau based in Balingen, Germany

SWISS KRONO

Technical Data Characteristic values acc. to EN 13986

For load-bearing, non-load-bearing and reinforcing purposes in dry and moisture-prone areas

Strand direction		Major axis			Minor axis		
Nominal thickness [mm]	**d**	**6-10**	**>10-18**	**>18-25**	**6-10**	**>10-18**	**>18-25**
Strength values [N/mm²] Stresses							
Bending	$f_{m,k}$	18.0	16.4	14.8	9.0	8.2	7.4
Compression	$f_{c,90,k}$		10.0			10.0	
Shear	$f_{v,k}$		1.0			1.0	
Plate loads							
Bending	$f_{m,k}$	9.9	9.4	9.0	7.2	7.0	6.8
Tensile loads	$f_{t,k}$	9.9	9.4	9.0	7.2	7.0	6.8
Compression	$f_{c,k}$	15.9	15.4	14.8	12.9	12.7	12.4
Shear	$f_{v,k}$		6.8			6.8	
Stiffness values [N/mm²] Stresses							
Modulus of elasticity	E_m [a]		4930			1980	
Shear modulus	G_r [a]		50			50	
Plate loads							
Modulus of elasticity	$E_{t/c}$ [a]		3800			3000	
Shear modulus	G_v [a]		1080			1080	

[a] The characteristic stiffness values E_{05} and G_{05} are calculated as follows: E_{05} = 0.85 x E and G_{05} = 0.85 x G

Building physics and general values		
Bulk density acc. to EN 323	m	≥ 600 kg/m³
Length and width tolerance		± 3mm
Squareness acc. to EN 324-2		2mm/m
Max. deviations in board thickness		± 0.8mm (ContiFinish®)
Thermal conductivity acc. to EN 13986	λ	0.13 W/mK
Water vapour permeability	s_d	≥ 2.0m (12 to 25mm) - dry
Thickness swelling acc. to EN 317		≤ 15%
Coefficient of expansion for 1% change in wood moisture		0.03%
Air permeability at 50 Pa		0.14 m³/hm²
Waste code	EWC	03 01 05
Emissions class		E1 – 100% formaldehyde-free binders (< 0.03 ppm)
Emissions class / DIBt expertise		G-160-18-0001: Compliance with health protection requirements or building structures acc. to MVVTB 2017/1, Annex 8
Environmental product declaration as per ISO 14205 and EN 15085		EPD-KRO-20150067-IBD2-DE
Utilisation classes acc. to EN V 1995-1-1		1 + 2
Reaction to fire performance class acc. to EN 13501-1		D - s2, d0
Declaration of Performance no. acc. to EU construction products regulation		SKDE_OSB-3_CPR_2019_048_EN

Note: The characteristic values are for structural calculations acc. to EN 1995-1-1 and EN 1995-1-2 (EC5).

Delivery Programme and Product Overview

Format [mm]	Thickness [mm]					
	12	**15**	**18**	**22**	**25**	**30**
2500 x 675 T+G on all 4 edges	•	•	•	•	•	•
2500 x 1250 T+G on all 4 edges	*	•	•	•	•	
6250 x 675 T+G on 2 edges				•	•	

* On request

Applications

- Floor renovation
- Dry floors / under dry screed
- Boarding to reinforce roofs or ceilings
- Interior finishing (e.g. walls, closets and stairs)
- Decorative uses

Did You Know?

The boards can be worked, sawn and cut with commercially available power tools, including portable circular saws (preferably with carbide-tipped blades). You can fix them with staples, nails or screws.

SWISS KRONO OSB/3 EN300, T+G

Sanded on both sides, made with formaldehyde-free binders, CE, PEFC ™

Naturally Strong with Tongue-and-Groove Joints

SWISS KRONO OSB/3 T+G is sanded on both sides, CE-certified under EN 13986 and produced in compliance with EN 300.

All four edges are profiled for tongue-and-groove joints, making it excellently suited for continuous installation.

Ideal for Direct Coating

SWISS KRONO OSB/3 T+G is sanded on both sides and can be coated just like ordinary wood. Varnishes, oils, waxes and glazes of all kinds should be applied in multiple coats. You can improve the final appearance and smoothness by letting the first coat dry and sanding it before applying the others.

The outstanding technical properties and closed surfaces of SWISS KRONO OSB/3 T+G make it excellently suited for building new eco-friendly buildings and refurbishing existing ones. Thanks to the precisely fitting tongue-and-groove system, it is quick and easy to install, either directly on the joists of a floor or ceiling frame or over acoustic insulation.

BLUE ANGEL THE GERMAN ECOLABEL

www.blauer-engel.de/uz76

- low emissions
- wood from sustainable forestry
- no adverse impact on health in the living environment

CE 13 1034 EN 13986

PEFC PEFC/ 04-35-0010

EPD Institut Bauen und Umwelt e.V.

MANAGEMENT SYSTEM CERTIFICATION DNV·GL ISO 9001 ISO 14001 ISO 50001

A project of BEMA based in Wald-Michelbach, Germany

Built by NOAH Haus GmbH based in Heede, Germany

SWISS KRONO

Technical Data Characteristic values acc. to EN 13986

For load-bearing, non-load-bearing and reinforcing purposes in dry and moisture-prone areas

Strand direction		Major axis			Minor axis		
Nominal thickness [mm]	**d**	**6-10**	**>10-18**	**>18-25**	**6-10**	**>10-18**	**>18-25**
Strength values [N/mm²] **Stresses**							
Bending	$f_{m,k}$	18.0	16.4	14.8	9.0	8.2	7.4
Compression	$f_{c,90,k}$		10.0			10.0	
Shear	$f_{v,k}$		1.0			1.0	
Plate loads							
Bending	$f_{m,k}$	9.9	9.4	9.0	7.2	7.0	6.8
Tensile loads	$f_{t,k}$	9.9	9.4	9.0	7.2	7.0	6.8
Compression	$f_{c,k}$	15.9	15.4	14.8	12.9	12.7	12.4
Shear	$f_{v,k}$		6.8			6.8	
Stiffness values [N/mm²] **Stresses**							
Modulus of elasticity	E_m [a]		4930			1980	
Shear modulus	G_r [a]		50			50	
Plate loads							
Modulus of elasticity	$E_{t/c}$ [a]		3800			3000	
Shear modulus	G_v [a]		1080			1080	

[a] The characteristic stiffness values E_{05} and G_{05} are calculated as follows: E_{05} = 0.85 x E and G_{05} = 0.85 x G

Building physics and general values		
Bulk density acc. to EN 323	m	≥ 600 kg/m³
Length and width tolerance		± 3mm
Squareness acc. to EN 324-2		2mm/m
Max. deviations in board thickness		± 0.3mm (sanded)
Thermal conductivity acc. to EN 13986	λ	0.13 W/mK
Water vapour permeability	s_d	≥ 2.0m (12 to 25mm) - dry
Thickness swelling acc. to EN 317		≤ 15%
Coefficient of expansion for 1% change in wood moisture		0.03%
Air permeability at 50 Pa		0.14 m³/hm²
Waste code	EWC	03 01 05
Emissions class		E1 – 100% formaldehyde-free binders (< 0.03 ppm)
Emissions class / DIBt expertise		G-160-18-0001: Compliance with health protection requirements or building structures acc. to MVVTB 2017/1, Annex 8
Environmental product declaration as per ISO 14205 and EN 15085		EPD-KRO-20150067-IBD2-DE
Utilisation classes acc. to EN V 1995-1-1		1 + 2
Reaction to fire performance class acc. to EN 13501-1		D - s2, d0
Declaration of Performance no. acc. to EU construction products regulation		SKDE_OSB-3_CPR_2019_048_EN

Note: The characteristic values are for structural calculations acc. to EN 1995-1-1 and EN 1995-1-2 (EC5).

Delivery Programme and Product Overview

Format [mm]	Thickness [mm]			
	15	**18**	**22**	**25**
2500 x 675 T+G on all 4 edges	•	•	•	•

Applications

- Timber-frame and engineered timber construction
- Industrial facilities and housing
- Decorative uses in shops and trade fair stands
- Trade fair stands / concrete formwork / prefabricated buildings
- Load-bearing ceiling boards
- Floors for heavy foot traffic
- Reinforcement of load-bearing walls
- Packaging, also for food

Did You Know?

SWISS KRONO uses state-of-the-art equipment to produce boards up to 18 metres long. These long boards speed the construction of homes and industrial facilities.

SWISS KRONO OSB/F**** BAZ, square-edged

ContiFinish®, German technical approval Z-9.1-618, monitored by HFB Engineering GmbH, made with formaldehyde-free binders, CE, PEFC™

100% Reliable and Safe

The top of our line, SWISS KRONO OSB/ F**** ("F four stars"), features a ContiFinish®, has received German technical approval Z-9.1- 618, is monitored by HFB Engineering GmbH and conforms to CE EN 13986 (OSB/4). It is as strong as OSB/4 and made with completely formaldehyde-free binders to optimally support healthy living. Its main use is in eco-friendly timber-frame construction.

The Eco-Friendly Engineered Wood Product of the Future

We are one of the world's leading manufacturers of eco-friendly engineered wood products, relying exclusively on natural raw materials to do so.

This also means using wood harvested while tending and thinning sustainably managed forests to make our premium product, SWISS KRONO OSB/F****. Its formaldehyde emissions are considerably below the E1 ceiling of 0.1ppm and even quite a bit less than the stricter maximum of 0.03ppm that industry organisations are calling for. As a result, it is even suitable for packaging food. When used for heavy transport or to package sensitive foods, its ContiFinish® face effectively keeps out moisture and damp.

Built by MAX-HAUS based in Marienwerder, Germany

BLUE ANGEL THE GERMAN ECOLABEL

www.blauer-engel.de/uz76

- low emissions
- wood from sustainable forestry
- no adverse impact on health in the living environment

CE 13 1034 EN 13986

PEFC PEFC/ 04-35-0010

EPD

MANAGEMENT SYSTEM CERTIFICATION DNV·GL ISO 9001 ISO 14001 ISO 50001

SWISS KRONO

Technical Data Characteristic values acc. to EN 13986

For load-bearing, non-load-bearing and reinforcing purposes in dry and moisture-prone areas

Strand direction			**Major axis**			**Minor axis**	
Nominal thickness [mm]	**d**	**10 - 18**	**>18 - 25**	**>25 - 30**	**10 - 18**	**>18 - 25**	**>25 - 30**
Strength values [N/mm²] Stresses							
Bending	$f_{m,k}$	28.0	23.0	23.0	14.0	12.5	12.5
Shear	$f_{v,k}$		1.5			1.5	
Plate loads							
Bending	$f_{m,k}$	19.5	17.0	17.0	13.5	12.5	12.5
Tensile loads	$f_{t,k}$	12.0	10.5	10.5	8.0	7.5	7.5
Compression	$f_{c,k}$	14.0	12.5	12.5	11.0	10.5	10.5
Shear	$f_{v,k}$	8.0	7.0	7.0	8.0	7.0	7.0
Stiffness values [N/mm²] Stresses							
Modulus of elasticity	$E_{m,mean}$		6500			3000	
Shear modulus	G_{mean}		100			100	
Plate loads							
Tensile modulus of elasticity	$E_{t,mean}$		3500			2500	
Bulk modulus of elasticity	$E_{c,mean}$		3500			2500	
Shear modulus	G_{mean}		1000			1000	

[a] The characteristic stiffness values E_{05} and G_{05} are calculated as follows: $E_{05} = 0.9 \times E_{mean}$ and $G_{05} = 0.9 \times E_{mean}$

Building physics and general values							
Bulk density acc. to EN 323	m	620 kg/m³					
Max. deviations in board thickness		± 0.4mm					
Length and width tolerance		± 3mm					
Squareness acc. to EN 324-2		2mm/m					
Embedment strength	perm. σ_l		5.0			4.0	
Tensile strength perp. to plane acc. to EN 1087-1	σ_{Zy}	0.14	0.12	0.10	0.14	0.12	0.10
Thermal conductivity acc. to EN 13986	λ	0.13 W/mK					
Water vapour permeability	s_d	≥ 2.0m (12 to 30mm) - dry					
Thickness swelling acc. to EN 317		≤ 9%					
Coefficient of expansion for 1% change in wood moisture		0.003%					
Air permeability at 50 Pa		0.14 m³/hm²					
Waste code	EWC	03 01 05					
Emissions class		E1 – 100% formaldehyde-free binders (< 0.03 ppm)					
VOC emissions / DIBt expertise		G-160-18-0001: Compliance with health protection requirements for building structures acc. to MVVTB 2017/1, Annex 8					
Environmental product declaration as per ISO 14205 and EN 1508		EPD-KRO-20150067-IBD2-DE					
Utilisation classes acc. to EN V 1995-1-1		1 + 2					
Reaction to fire performance class acc. to EN 13501-1		D - s2, d0					
Declaration of Performance no. acc. to EU construction products regulation		SKDE_OSB-F4S_CPR_2019_049_EN					
Applicable German technical approval		Z-9.1-618					

Note: The characteristic values are for structural calculations acc. to EN 1995-1-1 and EN 1995-1-2 (EC5).

Delivery Programme and Product Overview

Format [mm]	**Thickness [mm]**					
	12	**15**	**18**	**22**	**25**	**30**
2500 x 1250	•	•	•	•	*	•
2650 x 1250	•	•				
2800 x 1250	•	•				
3000 x 1250	•	•				
6501 to 18000 (**LONG**BOARD OSB)		**	**	**	**	

* On request , ** Minimum order: one truckload per thickness and board size

Special formats and thicknesses available on request

Applications

- Timber-frame and engineered timber construction
- Industrial facilities and housing
- Decorative uses, e.g. in shops
- Fair stands / formwork / prefabrication
- Load-bearing and reinforcing ceiling boards
- Floors for extremely heavy foot traffic
- Roof panelling (instead of raw timber)
- Reinforcement of heavily stressed roofs (application 2 as per EN 1995-1-1)

Did You Know?

You can download data sheets and sizing tables for the entire SWISS KRONO OSB range in PDF format for free at www.swisskrono.de.

SWISS KRONO OSB/F**** BAZ, T+G

ContiFinish®, German technical approval Z-9.1-618, monitored by HFB Engineering GmbH, made with formaldehyde-free binders, CE, PEFC ™

Quickly Build Roofs for Extreme Loads

Available with tongue-and-groove joints on two or four edges, SWISS KRONO OSB/ F**** (“F four stars”) – T+G, ContiFinish®, German technical approval Z-9.1- 618, monitored by HFB Engineering GmbH, compliant with CE EN 13986 (OSB/4) – makes sure that you finish roofs fast. Especially for construction applications that call for high strength and dimensional stability, this eco-friendly engineered wood product is the right choice.

Outstanding Environmental Properties and Structural Strength

Featuring excellent technical properties and made using only formaldehyde-free binders, SWISS KRONO OSB/ F**** is the modern all-rounder. For outstanding structural strength, energy efficiency, thermal and acoustic insulation and healthy living conditions, the pros choose SWISS KRONO OSB/ F****. This diffusion-inhibiting material is approved for reinforcing interior and exterior walls, ceilings and roofs, amongst other uses.

Built by Terhalle Holzbau GmbH based in Ahaus, Germany

BLUE ANGEL THE GERMAN ECOLABEL

www.blauer-engel.de/uz76

- low emissions
- wood from sustainable forestry
- no adverse impact on health in the living environment

CE 13 1034 EN 13986

PEFC PEFC/ 04-35-0010

EPD

MANAGEMENT SYSTEM CERTIFICATION DNV·GL ISO 9001 ISO 14001 ISO 50001

SWISS KRONO

Technical Data Characteristic values acc. to EN 13986

For load-bearing, non-load-bearing and reinforcing purposes in dry and moisture-prone areas

Strand direction		**Major axis**			**Minor axis**		
Nominal thickness [mm]	**d**	**10 - 18**	**>18 - 25**	**>25 - 30**	**10 - 18**	**>18 - 25**	**>25 - 30**
Strength values [N/mm²] **Stresses**							
Bending	$f_{m,k}$	28.0	23.0	23.0	14.0	12.5	12.5
Shear	$f_{v,k}$		1.5			1.5	
Plate loads							
Bending	$f_{m,k}$	19.5	17.0	17.0	13.5	12.5	12.5
Tensile loads	$f_{t,k}$	12.0	10.5	10.5	8.0	7.5	7.5
Compression	$f_{c,k}$	14.0	12.5	12.5	11.0	10.5	10.5
Shear	$f_{v,k}$	8.0	7.0	7.0	8.0	7.0	7.0
Stiffness values [N/mm²] **Stresses**							
Modulus of elasticity	$E_{m,mean}$		6500			3000	
Shear modulus	G_{mean}		100			100	
Plate loads							
Tensile modulus of elasticity	$E_{t,mean}$		3500			2500	
Bulk modulus of elasticity	$E_{c,mean}$		3500			2500	
Shear modulus	G_{mean}		1000			1000	

[a] The characteristic stiffness values E_{05} and G_{05} are calculated as follows: $E_{05} = 0.9 \times E_{mean}$ and $G_{05} = 0.9 \times E_{mean}$

Building physics and general values							
Bulk density acc. to EN 323	m	620 kg/m³					
Max. deviations in board thickness		± 0.4mm					
Length and width tolerance		± 3mm					
Squareness acc. to EN 324-2		2mm/m					
Embedment strength	perm. σ_l		5.0			4.0	
Tensile strength perp. to plane acc. to EN 1087-1	σ_{Zy}	0.14	0.12	0.10	0.14	0.12	0.10
Thermal conductivity acc. to EN 13986	λ	0.13 W/mK					
Water vapour permeability	s_d	≥ 2.0m (12 to 30mm) - dry					
Thickness swelling acc. to EN 317		≤ 9%					
Coefficient of expansion for 1% change in wood moisture		0.003%					
Air permeability at 50 Pa		0.14 m³/hm²					
Waste code	EWC	03 01 05					
Emissions classe		E1 – 100% formaldehyde-free binders (< 0.03 ppm)					
VOC emissions / DIBt expertise		G-160-18-0001: Compliance with health protection requirements for building structures acc. to MVVTB 2017/1, Annex 8					
Environmental product declaration as per ISO 14205 and EN 15085		EPD-KRO-20150067-IBD2-DE					
Utilisation classes acc. to EN V 1995-1-1		1 + 2					
Reaction to fire performance class acc. to EN 13501-1		D - s2, d0					
Declaration of Performance no. acc. to EU construction products regulation		SKDE_OSB-F4S_CPR_2019_049_EN					
Applicable German technical approval		Z-9.1-618					

Note: The characteristic values are for structural calculations acc. to EN 1995-1-1 and EN 1995-1-2 (EC5).

Delivery Programme and Product Overview

Format [mm]	**Thickness [mm]**					
	12	**15**	**18**	**22**	**25**	**30**
2500 x 675 T+G on all 4 edges	*	•	•	•	•	•
2500 x 1250 T+G on all 4 edges	*	•	•	•	•	

* On request

DIY Applications

- Interiors (also suitable for moisture-prone rooms)
- Floors
- Furniture
- Shelves

Did You Know?

The faces of the boards are enhanced by compressing them in a continuous manufacturing process. The resulting unsanded ContiFinish® surfaces consist of a thin layer of binder and wood resins that repels moisture and prevents soiling during installation.

SWISS KRONO kompaktholz, T+G

ContiFinish®, CE, PEFC ™

The Application-Friendly Board

The formaldehyde emissions of kompaktholz OSB/3 boards are even lower than the levels prescribed by the E1 regulation. They owe their excellent dimensional stability and high strength to a three-ply structure. The boards are produced from strips of pinewood veneer (strands) between 120 and 150mm long that are laid down in three plies with the grain of each running at right angles to the next. Like wood, it can be fixed using staples, nails or screws.

Save Space with Thinner Boards

kompaktholz OSB/3 is considerably stronger than particleboard, which permits the use of thinner boards. For example, a kompaktholz board 22mm thick is just as strong as 30mm-thick particleboard. This saves material, reduces weight and frees up additional space for living or installing thermal insulation.

kompaktholz OSB/3 boards are also ideal for DIY projects and can be cut with commercially available tools such as circular handsaws.

BLUE ANGEL THE GERMAN ECOLABEL

www.blauer-engel.de/uz76

- low emissions
- wood from sustainable forestry
- no adverse impact on health in the living environment

CE 13 1034 EN 13986

PEFC PEFC/ 04-35-0010

EPD

FSC www.fsc.org FSC® C023682 Das Zeichen für verantwortungsvolle Waldwirtschaft

MANAGEMENT SYSTEM CERTIFICATION DNV·GL ISO 9001 · ISO 14001 ISO 50001

A project of SCHLOSSER Plan.projekt GmbH & Co KG based in Jagstzell, Germany

SWISS KRONO

Technical Data Characteristic values acc. to EN 13986

For load-bearing, non-load-bearing and reinforcing purposes in dry and moisture-prone areas

Strand direction		**Major axis**		**Minor axis**	
Nominal thickness [mm]	**d**	**10-18**	**>18-22**	**10-18**	**>18-22**
Strength values [N/mm²] **Stresses**					
Bending	$f_{m,k}$	16.4	14.8	8.2	7.4
Compression	$f_{c,90,k}$	10.0		10.0	
Shear	$f_{v,k}$	1.0		1.0	
Plate loads					
Bending	$f_{m,k}$	9.4	9.0	7.0	6.8
Tensile loads	$f_{t,k}$	9.4	9.0	7.0	6.8
Compression	$f_{c,k}$	15.4	14.8	12.7	12.4
Shear	$f_{v,k}$	6.8		6.8	
Stiffness values [N/mm²] **Stresses**					
Modulus of elasticity	E_m [a]	4930		1980	
Shear modulus	G_r [a]	50		50	
Plate loads					
Modulus of elasticity	$E_{t/c}$ [a]	3800		3000	
Shear modulus	G_v [a]	1080		1080	

[a] The characteristic stiffness values E_{05} and G_{05} are calculated as follows: E_{05} = 0.85 x E and G_{05} = 0.85 x G

Building physics and general values		
Bulk density acc. to EN 323	m	600 kg/m³
Max. deviations in board thickness		± 0.8mm
Length and width tolerance		± 3mm
Squareness acc. to EN 324-2		2mm/m
Thermal conductivity acc. to EN 13986	λ	0.13 W/mK
Thickness swelling acc. to EN 317		≤ 15%
Waste code	EWC	03 01 05
Emissions class		E1 – 100% formaldehyde-free binders (< 0,03 ppm)
VOC emissions / DIBt expertise		G-160-18-0001: Compliance with health protection requirements for building structures acc. to MVVTB 2017/1, Annex 8
Environmental product declaration as per ISO 14205 and EN 15085		EPD-KRO-20150067-IBD2-DE
Utilisation classes acc. to EN V 1995-1-1		1 + 2
Reaction to fire performance class acc. to EN 13501-1		D - s2, d0
Declaration of Performance no. acc. to EU construction products regulation		SKDE_KH_CPR_2019_047_EN

Note: The characteristic values are for structural calculations acc. to EN 1995-1-1 and EN 1995-1-2 (EC5).

Delivery Programme and Product Overview

Format [mm]		**Thickness [mm]**				
		12	**15**	**18**	**22**	**25**
2050 x 675	T+G on all 4 edges	•	•	•	•	•

Applications

- Highly sensitive applications
- Timber-frame and engineered timber construction
- Industrial facilities and housing
- Load-bearing ceiling boards
- Floors
- For reinforcing walls
- Roof boarding (instead of rough tongue-and-groove boards)
- Packaging
- Furniture, shelves and doors

Haribo daycare centre, photograph: Marcel Kohnen

OSB/3 sensitiv EN300, square-edged and T+G

ContiFinish®, bonded without formaldehyde, CE

SWISS KRONO OSB/3 sensitiv

- A good decision

Responsible, sustainable building isn't just a well-intentioned philosophy. In our view, it is also the basis for modern timber construction. And environmentally responsibly use of resources starts with choosing appropriate materials. While **SWISS KRONO OSB/3 sensitiv** also lends itself for visible and decorative applications, it is especially well-suited for special applications in timber construction.

- For sensitiv areas

Especially in buildings and rooms used by many people, air quality is likely to suffer. Headaches, difficulty in concentrating, fatigue, dizziness: the list of symptoms that contaminants can cause is long.

It's a proven fact that eco-friendly engineered wood materials can contribute to enhancing wellbeing and health, especially in sensitiv areas. SWISS KRONO therefore recommends using **SWISS KRONO OSB/3 sensitiv** for daycare centres, schools, hospitals, nursing homes, event and conference facilities etc. It is made using only naturally low-emission wood from Populus tree species grown in sustainably managed forests and bonded using formaldehyde-free resins. It is also free of typical wood odours.

Benefits of SWISS KRONO OSB/3 sensitiv

- **SWISS KRONO OSB/3 sensitiv** is made using only formaldehyde-free bonding resins – in contrast to particleboard, which often contains unhealthy formaldehyde.
- Because of this, **SWISS KRONO OSB/3 sensitiv** is widely approved for use in flat roof constructions.
- **SWISS KRONO OSB/3 sensitiv** is made using only freshly cut wood from sustainably managed forests. Particleboard, by contrast, often contains used wood contaminated with heavy metals, preservatives etc.
- **SWISS KRONO OSB/3 sensitiv** retains its shape and dimensions when the relative humidity fluctuates, unlike plywood. Its water-repellent ContiFinish® surfaces provide additional protection from moisture.
- Plywood, like most kinds of particleboard, is also bonded with formaldehyde-containing resins.
- **SWISS KRONO OSB/3 sensitiv** is also less expensive than plywood when all factors are considered, due to its outstanding value for money.

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EN 13986

FSC
www.fsc.org
FSC® C023682
Das Zeichen für verantwortungsvolle Waldwirtschaft

SWISS KRONO

Technical Data Characteristic values acc. to EN 13986

For load-bearing, non-load-bearing and reinforcing purposes in dry and moisture-prone areas

Strand direction		Major axis			Minor axis		
Nominal thickness [mm]	**d**	**6-10**	**>10-18**	**>18-25**	**6-10**	**>10-18**	**>18-25**
Strength values [N/mm²] **Stresses**							
Bending	$f_{m,k}$	18.0	16.4	14.8	9.0	8.2	7.4
Compression	$f_{c,90,k}$		10.0			10.0	
Shear	$f_{v,k}$		1.0			1.0	
Plate loads							
Bending	$f_{m,k}$	9.9	9.4	9.0	7.2	7.0	6.8
Tensile loads	$f_{t,k}$	9.9	9.4	9.0	7.2	7.0	6.8
Compression	$f_{c,k}$	15.9	15.4	14.8	12.9	12.7	12.4
Shear	$f_{v,k}$		6.8			6.8	
Stiffness values [N/mm²] **Stresses**							
Modulus of elasticity	E_m [a]		4930			1980	
Shear modulus	G_r [a]		50			50	
Plate loads							
Modulus of elasticity	$E_{t/c}$ [a]		3800			3000	
Shear modulus	G_v [a]		1080			1080	

[a] The characteristic stiffness values E_{05} and G_{05} are calculated as follows: E_{05} = 0.85 x E and G_{05} = 0.85 x G

Building physics and general values		
Bulk density acc. to EN 323	m	≥ 600 kg/m³
Length and width tolerance		± 3mm
Squareness acc. to EN 324-2		2mm/m
Max. deviations in board thickness		± 0.8mm (ContiFinish®)
Thermal conductivity acc. to EN 13986	λ	0.13 W/mK
Thickness swelling acc. to EN 317		≤ 15%
Coefficient of expansion for 1% change in wood moisture		0.03%
Water vapour permeability	s_d	≥ 2.0m (12 to 25mm) - dry
Waste code	EWC	03 01 05
TVOC emissions acc. to AgBB (28 days)	µg/m³	202
Emissions class		E1 – 100% formaldehyde-free binders (< 0.03 ppm)
Emissions class / DIBt expertise		G-160-18-0001: Compliance with health protection requirements or building structures acc. to MVVTB 2017/1, Annex 8
Type of wood used		Populus species
Utilisation classes acc. to EN V 1995-1-1		1 + 2
Reaction to fire performance class acc. to EN 13501-1		D - s2, d0
Declaration of Performance no. acc. to EU construction products regulation		SKHU_OSB/3_SENSITIV_CPR_001_EN

Note: The characteristic values are for structural calculations acc. to EN 1995-1-1 and EN 1995-1-2 (EC5).

You can find the current delivery programme at www.swisskono.de.

When exposed to flame, SWISS KRONO OSB/SF-B chars to form a fire-inhibiting layer.

Safety benefits at a glance

- Chars to create a flame-retardant layer
- Treated strands for fire-resistant edges as well
- Resistance to fire class B-s2,d0 as per EN 13501-1 (previously class B1)
- Completely formaldehyde-free binders
- As easy to use as standard OSB
- Water-repellent ContiFinish® surfaces
- No smouldering after exposure to fire

15-minute exposure to flame only chars surfaces.

SWISS KRONO OSB/SF-B EN300, T+G – The classic construction material with built-in fire protection

ContiFinish®, CE, PEFC™

SWISS KRONO OSB/SF-B is an enhancement of the high-performing classic construction material, SWISS KRONO OSB/3. Like the basic version, the flame-retarding version is also CE-certified under DIN EN 13986 and an ideal engineered wood product for both loadbearing and reinforcing applications.

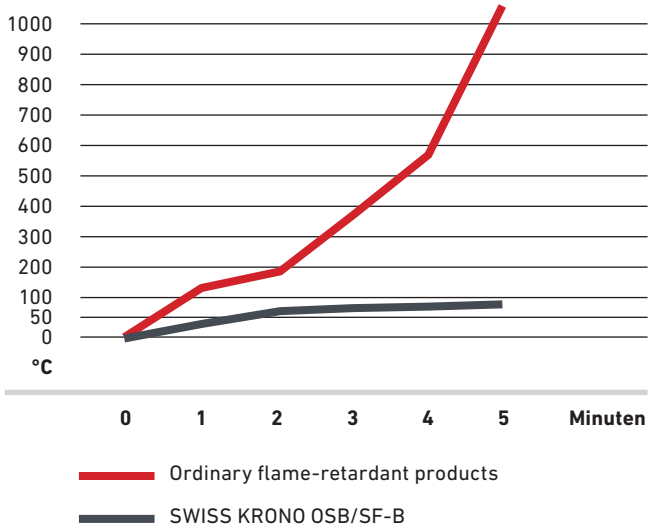
All wood particles are treated during production, so the resulting boards are reliably flame resistant all the way through, even after being worked and at their edges.

Numerous tests have shown that SWISS KRONO OSB/SF-B reliably resists catching fire, even after prolonged exposure; its flame resistance actually increases as a result of external charring. SWISS KRONO thus helps prevent

- fires from spreading,
- ambient temperatures from increasing to several hundred degrees Celsius and
- the release of smoke

The boards are suitable for exterior uses wherever they are not directly exposed to the weather. They can be used in same dimensions as tried-and-proven standard SWISS KRONO OSB/3 and are characterised by all of the same outstanding strength metrics.

Comparison of increase in ambient temperature
Minutes



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EN 13986

swisskrono.de

SWISS KRONO

Technical Data Characteristic values acc. to EN 13986

For load-bearing, non-load-bearing and reinforcing purposes in dry and moisture-prone areas

Strand direction		**Major axis**		**Minor axis**	
Nominal thickness [mm]	**d**	**>12-18**	**>18-22**	**>12-18**	**>18-22**
Strength values [N/mm²] **Stresses**					
Bending	$f_{m,k}$	16.4	14.8	8.2	7.4
Compression	$f_{c,90,k}$	10.0		10.0	
Shear	$f_{v,k}$	1.0		1.0	
Plate loads					
Bending	$f_{m,k}$	9.4	9.0	7.0	6.,8
Tensile loads	$f_{t,k}$	9.4	9.0	7.0	6.8
Compression	$f_{c,k}$	15.4	14.8	12.7	12.4
Shear	$f_{v,k}$	6.8		6.8	
Stiffness values [N/mm²] **Stresses**					
Modulus of elasticity	E_m [a]	4930		1980	
Shear modulus	G_r [a]	50		50	
Plate loads					
Modulus of elasticity	$E_{t/c}$ [a]	3800		3000	
Shear modulus	G_v [a]	1080		1080	

[a] The characteristic stiffness values E_{05} and G_{05} are calculated as follows: E_{05} = 0.85 x E and G_{05} = 0.85 x G

Building physics and general values		
Bulk density acc. to EN 323	m	680 kg/m³
Length and width tolerance		± 3mm
Squareness acc. to EN 324-2		2mm/m
Max. deviations in board thickness		± 0.8mm (ContiFinish®)
Thermal conductivity acc. to EN 13986	λ	0.13 W/mK
Water vapour permeability	s_d	≥ 2.0m (12 to 22mm) - dry
Thickness swelling acc. to EN 317		≤ 15%
Coefficient of expansion for 1% change in wood moisture		0.03%
Air permeability at 50 Pa		0.14m³/hm²
Waste code	EWC	03 01 05
Emissions class		E1 – 100% formaldehyde-free binders (< 0.03 ppm)
Utilisation classes acc. to EN V 1995-1-1		1 + 2
Reaction to fire performance class acc. to EN 13501-1		B - s2, d0 - flame retardant
Declaration of Performance no. acc. to EU construction products regulation		SKDE_OSB/SF-B_CPR_2019_051

Note: The characteristic values are for structural calculations acc. to EN 1995-1-1 and EN 1995-1-2 (EC5).

You can find the current delivery programme at www.swisskono.de.

swisskrono.de

Built by 3BTEC Holzbau GmbH based in Ludwigsfelde, Germany

Did You Know?

All products of the SWISS KRONO **MAGNUM**BOARD® OSB timber construction system comply with technical approval no. Z-9.1-591 of the German Institute for Civil Engineering in Berlin.

SWISS KRONO OSB/4 BAZ, sanded

German technical approval Z-9.1-503, CE, PEFC ™, **MAGNUM**BOARD® OSB raw board

100% SWISS KRONO OSB/4

SWISS KRONO **MAGNUM**BOARD® OSB is a solid building system approved by the German building authorities. It consists of multiple 25mm-thick SWISS KRONO OSB/4 boards glued together. The SWISS KRONO OSB/4 used to make it is an engineered wood product which is certified as safe for food applications, free of formaldehyde-containing binders and extremely resistant to pests. It is made entirely from thinnings harvested from sustainably managed German forests. Only completely formaldehyde-free binders are used to achieve highly stable bonding of the raw materials. SWISS KRONO OSB/4 is produced in a format of 18 x 2.8 metres by 25mm thick with sanded faces.

This innovative SWISS KRONO OSB product is optimally suited for making large wall and roof panels and modules in both prefabricated and conventional construction. It gives producers of prefabricated components for timber-frame houses many opportunities to work more efficiently and streamline costs. Storey-high **LONG**BOARDS of the SWISS KRONO OSB product family can cover the entire length of buildings and completely eliminate butt joints. They can then be immediately finished with wallpaper, plaster or tiles without the need to apply a layer of plasterboard first.

Dimensionally Stable and Certified

SWISS KRONO **MAGNUM**BOARD® OSB, like SWISS KRONO OSB/4, is extremely dimensionally stable and structurally very strong, highly thermally and acoustically insulating, and flame-resistant. Apertures for stairways, windows and doors, electrical conduits and sanitary and heating installations are precisely cut out and milled to the required sizes and shapes in all of the component boards before these are glued together. This greatly speeds subsequent installation. From three to ten boards are combined to create elements between 75 and 250mm thick. The final formats can be freely specified.

Interior Enhancement: Anything Is Possible

The sanded faces of SWISS KRONO **MAGNUM**BOARD® OSB elements can be directly painted, papered, smoothed with filler, plastered or finished with veneer, laminate, etc. Depending on the stresses they will be subjected to, they can also be optionally covered with plasterboard.

The individually produced elements result in constructions that are free of joints and airtight. Externally applied thermal insulation prevents thermal bridges and optimises energy efficiency.

BLUE ANGEL THE GERMAN ECOLABEL

www.blauer-engel.de/uz76

- low emissions
- wood from sustainable forestry
- no adverse impact on health in the living environment

CE 13 1034 EN 13986

PEFC PEFC/ 04-35-0010

THIRD-PARTY VERIFIED EPD Institut Bauen und Umwelt e.V.

MANAGEMENT SYSTEM CERTIFICATION DNV·GL ISO 9001 = ISO 14001 ISO 50001

SWISS KRONO

Technical Data Characteristic values acc. to EN 13986

Strand direction		Major axis	Minor axis
Nominal thickness [mm]	**d**	**25**	**25**
Strength values [N/mm²]			
Stresses			
Bending	$f_{m,k}$	27.5	19.0
Shear	$f_{v,k}$	1.5	1.5
Plate loads			
Bending	$f_{m,k}$	10.9	8.0
Tensile loads	$f_{t,k}$	11.5	11.0
Compression	$f_{c,k}$	14.5	14.5
Shear	$f_{v,k}$	7.0	7.0
Stiffness values [N/mm²]			
Stresses			
Modulus of elasticity	$E_{m,mean}$	7500	3500
Shear modulus	G_{mean}	70	90
Plate loads			
Tensile modulus of elasticity	$E_{t,mean}$	3500	3000
Bulk modulus of elasticity	$E_{c,mean}$	3500	2500
Shear modulus	G_{mean}	1100	1100

[a] The characteristic stiffness values E_{05} and G_{05} are calculated as follows: $E_{05} = 0.9 \times E_{mean}$ and $G_{05} = 0.9 \times E_{mean}$

Building physics and general values		
Bulk density acc. to EN 323	m	620 kg/m³
Max. deviations in board thickness		± 0,3mm (sanded)
Tensile strength perp. to plane acc. to EN 319	σ_{Zy}	0.13
Thermal conductivity acc. to EN 13986	λ	0.13 W/mK
Water vapour permeability	s_d	≥ 2.0m (18 to 25mm) - dry
Max. change in length when rel. humidity varies	%	0.005
Thickness swelling acc. to EN 317		≤ 8%
Waste code	EWC	03 01 05
Emissions class		E1 – 100% formaldehyde-free binders (< 0.03 ppm)
VOC emissions / DIBt expertise		G-160-18-0001: Compliance with health protection requirements for building structures acc. to MVVTB 2017/1, Annex 8
Environmental product declaration as per ISO 14205 and EN 15085		EPD-KRO-20150067-IBD2-DE
Utilisation classes acc. to EN V 1995-1-1		1 + 2
Reaction to fire performance class acc. to EN 13501-1		D - s2, d0
Applicable German technical approval		Z-9.1-503
Declaration of Performance no. acc. to EU construction products regulation		SKDE_OSB-4_CPR_2019_050_EN

Delivery Programme and Product Overview

Format [mm]	Thickness [mm] 25
15,000 x 2800	•
18,000 x 2800	•

Photograph: www.rosengruen.de

Applications

- Termite-resistant OSB
- For use in termite-infested regions
- Completely insecticide-impregnated for lastingly effective protection

SWISS KRONO OSB anti-termite, square-edged

ContiFinish®, CE, PEFC™

Special OSB Which Resists Termite Attack

SWISS KRONO anti-termite square-edged is a specially developed termite-resistant OSB board version for use in regions where these insects are endemic. It is mainly exported to southern France, Australia, Africa and the United States.

Lastingly Effective Protection

Wood and engineered wood products are the favourite foods of termites, which cause billions of dollars' worth of damage to houses every year in the United States alone: more than fires, storms or earthquakes. According to estimates by the Global Environment Facility (GEF), in the world as a whole termites inflict damage to buildings on the order of 15 to 20 billion U.S. dollars annually.

Developed for use under special conditions, SWISS KRONO anti-termite, square-edged features outstanding technical properties. It is completely impregnated with a lastingly effective insecticide to optimally safeguard it from voracious termites. This OSB board thus meets all requirements for use in affected regions.

SWISS KRONO OSB anti-termite, T+G

ContiFinish®, CE, PEFC™

Tongue-and-Groove Version of SWISS KRONO anti-termite

With all four edges profiled for tongue-and-groove joints, this version of SWISS KRONO anti-termite boasts excellent technical properties. To make sure that SWISS KRONO anti-termite T+G will withstand termite attack, an insecticide is added to the binder and strand mixture before pressing.

Like SWISS KRONO anti-termite square-edged, SWISS KRONO anti-termite T+G was specially developed for export to regions in which termites are a major problem.

Proactive Termite Protection

While producing SWISS KRONO anti-termite T+G, an insecticide is mixed with the binder to proactively and very effectively protect this engineered wood material from termite attack. Test results have shown that even after several weeks of exposure to termites, SWISS KRONO anti-termite T+G shows no measurable signs of infestation, while conventional boards suffer severe damage.

CE EN 13986 2004

PEFC PEFC/ 04-35-0010

QUALITE CTB B+ CERTIFIEE

Technical Data Characteristic values acc. to EN 13986

Strand direction		Major axis			Minor axis		
Nominal thickness [mm]	**d**	**6-10**	**>10-18**	**>18-25**	**6-10**	**>10-18**	**>18-25**
Strength values [N/mm²] **Stresses**							
Bending	$f_{m,k}$	18.0	16.4	14.8	9.0	8.2	7.4
Compression	$f_{c,90,k}$		10.0			10.0	
Shear	$f_{v,k}$		1.0			1.0	
Plate loads							
Bending	$f_{m,k}$	9.9	9.4	9.0	7.2	7.0	6.8
Tensile loads	$f_{t,k}$	9.9	9.4	9.0	7.2	7.0	6.8
Compression	$f_{c,k}$	15.9	15.4	14.8	12.9	12.7	12.4
Shear	$f_{v,k}$		6.8			6.8	
Stiffness values [N/mm²] **Stresses**							
Bending modulus of elasticity	E_{mean} [a]		4930			1980	
Shear modulus	G_{mean} [a]		50			50	
Plate loads							
Modulus of elasticity	E_{mean} [a]		3800			3000	
Shear modulus	G_{mean} [a]		1080			1080	

[a] The characteristic stiffness values E_{05} and G_{05} are calculated as follows: E_{05} = 0.85 x E_{mean} and G_{05} = 0.85 x E_{mean}

Building physics and general values		
Bulk density acc. to EN 323	m	600 kg/m³
Max. deviations in board thickness		± 0.8mm (ContiFinish®) | ± 0.3mm (sanded)
Thermal conductivity acc. to EN 13986	λ	0.13 W/mK
Thickness swelling acc. to EN 317		≤ 15%
Coefficient of expansion for 1% change in wood moisture		0.03%
Waste code	EWC	03 01 05
Emissions class		E1 – 100% formaldehyde-free binders (< 0.03 ppm)
Utilisation classes acc. to EN V 1995-1-1		1 + 2
Reaction to fire performance class acc. to EN 13501-1		D - s2, d0
CE certificate no.		501-12-2494 - GB

Note: The characteristic values are for structural calculations acc. to EN 1995-1-1 and EN 1995-1-2 (EC5).

Delivery Programme and Product Overview

SWISS KRONO OSB anti-termite, square-edged ContiFinish®	Acc. to customer specifications
SWISS KRONO OSB anti-termite, T+G ContiFinish®	Acc. to customer specifications

Applications

- Formwork of all kinds
- For cutting to size at construction sites
- Construction site fences

Did You Know?

Pressing with ContiRoll® technology creates a thin, moisture-repellent ContiFinish® surface layer consisting of bonding and wood resins.

SWISS KRONO QuicklyBoard OSB/3 EN300, square-edged

ContiFinish®, CE, PEFC ™

An All-Rounder for Construction Projects

QuicklyBoard OSB/3 EN300 excels with outstanding bending properties, and its ContiFinish® surfaces reduce penetration of moisture: ideal attributes for facilitating concreting work.

For use as universal formwork, cut-to-size boards or construction site fences: the water-repellent layer, excellent dimensional stability and high strength of QuicklyBoard OSB/3 EN300 make it a versatile multi-talent for building projects.

Easy to Use and Economic

SWISS KRONO QuicklyBoard OSB/3 EN300 is extremely easy to use. The boards could hardly be simpler to cut or saw to size, and they score points with their high nail and screw pullout resistance. This makes sure they can be firmly attached to any substrate.

The grained face of SWISS KRONO QuicklyBoard OSB/3 EN300 imprints an attractive pattern on the concrete and is an economic alternative to conventional plywood formwork. Another advantage is that the ContiRoll® technology used to produce it minimises the risk of swelling.

BLUE ANGEL THE GERMAN ECOLABEL

www.blauer-engel.de/uz76

- low emissions
- wood from sustainable forestry
- no adverse impact on health in the living environment

CE 13 1034 EN 13986

PEFC PEFC/ 04-35-0010

EPD

MANAGEMENT SYSTEM CERTIFICATION DNV·GL ISO 9001 ISO 14001 ISO 50001

SWISS KRONO

Technical Data Characteristic values acc. to EN 13986

Strand direction		Major axis	Minor axis
Nominal thickness [mm]	**d**	**20**	**20**
Strength values [N/mm²]			
Stresses			
Bending	$f_{m,k}$	16.4	8.2
Compression	$f_{c,90,k}$	10.0	10.0
Shear	$f_{v,k}$	1.0	1.0
Plate loads			
Bending	$f_{m,k}$	9.4	7.0
Tensile loads	$f_{t,k}$	9.4	7.0
Compression	$f_{c,k}$	15.4	12,7
Shear	$f_{v,k}$	6.8	6.8
Stiffness values [N/mm²]			
Stresses			
Bending modulus of elasticity	E_m [a]	4930	1980
Shear modulus	G_r [a]	50	50
Plate loads			
Modulus of elasticity	$E_{t/c}$ [a]	3800	3000
Shear modulus	G_v [a]	1080	1080

[a] The characteristic stiffness values E_{05} and G_{05} are calculated as follows: $E_{05} = 0.85 \times E_{mean}$ and $G_{05} = 0.85 \times E_{mean}$

Building physics and general values			
Bulk density acc. to EN 323	m	600 kg/m³	
Max. deviations in board thickness		± 0.8mm (ContiFinish®)	
Tensile strength perp. to plane acc. to EN 319	σ_{Zy}	0.15	0.15
Thermal conductivity acc. to EN 13986	λ	0.13 W/mK	
Thickness swelling acc. to EN 317		≤ 15%	
Waste code	EWC	03 01 05	
Emissions class		E1 – 100% formaldehyde-free binders	
VOC emissions / DIBt expertise		G-160-18-0001: Compliance with health protection requirements for building structures acc. to MVVTB 2017/1, Annex 8	
Environmental product declaration as per ISO 14205		EPD-KRO-20150067-IBD2-EN	
Utilisation classes acc. to EN V 1995-1-1		1 + 2	
Reaction to fire performance class acc. to EN 13501-1		D - s2, d0	
Declaration of Performance no. acc. to EU construction products regulation		SKDE_KH_CPR_2019_047_EN	

Delivery Programme and Product Overview

Format [mm]	Thickness [mm]
	20
2500 x 1250	•

Did You Know?

- Usable as underroof panels or outer boarding for timber-frame walls
- Water-vapour-permeable
- German technical approval Z-9.1-442
- Tested for use as underroof panels by Holzforschung Austria
- Rainproof even without additional panelling, water-vapour-permeable membrane or a bitumen layer

SWISS KRONO DP50, T+G

LiquiSafe on all 4 edges, German technical approval Z-9.1-442

The Multifunctional Underroof Panel

SWISS KRONO DP50, T+G, LiquiSafe on all 4 edges consists of water-vapour-permeable medium-density fibreboard (MDF). It is ideal for use as underroof panels and, with a bulk density of about 500kg/m^3, very easy to cut, saw and work. The boards are 15mm thick and therefore very strong.

Transport and Storage

- Protect the edges to prevent damage.
- Cover panels to protect them from excess moisture and the weather.
- Cover when storing at construction sites.
- To prevent damp from the ground from penetrating panels, place them on wooden supports.
- Before installing panels, remove the plastic wrapping and acclimate them at the installation site for about three days.
- Make sure that panels are dry when installed, unless they will be able to immediately re-release any absorbed moisture. Panels can get wet and dry out again without suffering any loss of strength.

Use

- Suitable for class UDP-A roofing according to the guidelines of the German Roofers' Association (ZVDH).
- Roof pitches: up to 8° less than the minimum slope of the roof covering, but in no case less than 16°.
- Panels may be walked on when resting on rafters or joists spaced up to 1000mm apart.
- Weathering: panels may be exposed to the elements for up to 4 weeks. Moist panels cannot be safely walked on.
- Use staples, screws or nails as fasteners.
- Seal only with butyl rubber tape (e.g. Ampacoll BK535). No priming is required for this. No nail sealing tape or sealing strips are needed beneath counterbattens.
- Install so the printed face is on the outside. The LiquiSafe tongue-and-groove system should be aligned with the bevel on the outside and the tongue at the top.
- Install the panels continuously, starting at the bottom left and working upwards and to the right. Stagger the joints by at least 50cm while ensuring that each panel rests on at least two adjacent rafters or joists.
- Interior finishing: the interior construction should be completed right after installing the roofing to prevent condensation and mould. It must be possible for any entrapped moisture (in filler, plaster etc.) to evaporate and escape. This applies especially to the months between October and April (between April and October in the southern hemisphere). Implement the airtight building envelope with due care while following the suppliers' instructions.
- "Cold roofs": ensure adequate ventilation of the area beneath uninsulated roof constructions.
  Note: cold roofs are not recommended.

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EN 13986

EPD

FSC
www.fsc.org
FSC® C023682
Das Zeichen für verantwortungsvolle Waldwirtschaft

QM-System is certified to
ISO 9001
QS-3281 HH

SWISS KRONO

Technical Data Characteristic values acc. to Z-9.1-442

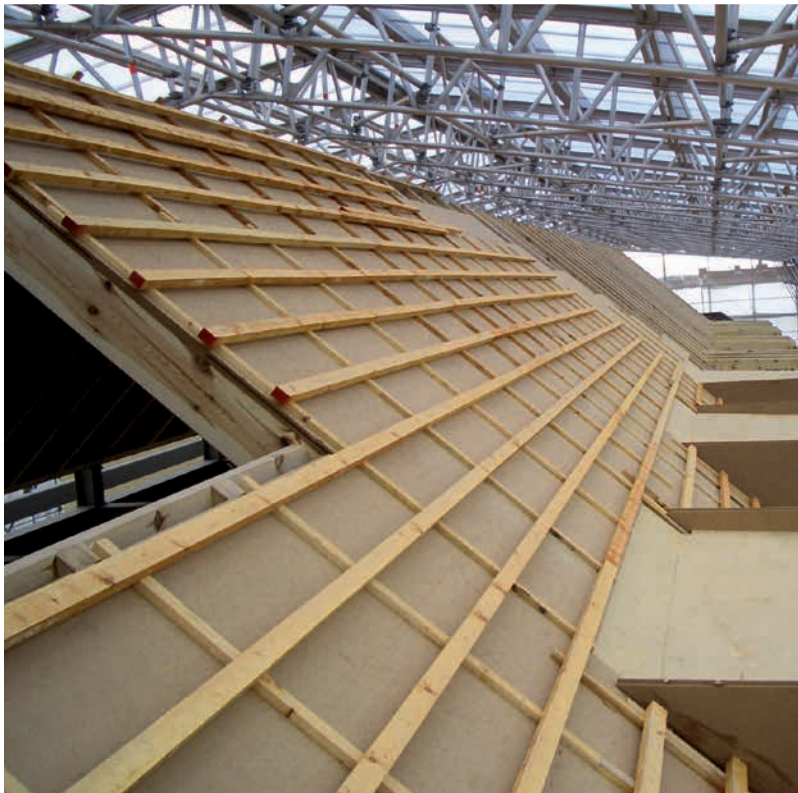
Nominal thickness [mm]	d	15
Strength values [N/mm²]		
Stresses		
Bending	$f_{m,k}$	17
Shear	$f_{v,k}$	0.8
Stiffness values [N/mm²]		
Stresses		
Modulus of elasticity	$E_{m,mean}$ [a]	2700
Shear modulus	G_{mean} [a]	50
[a] The characteristic stiffness values E_{05} and G_{05} are calculated as follows: $E_{05} = 0.9 \times E_{mean}$ and $G_{05} = 0.9 \times G_{mean}$		
Building physics and general values		
Bulk density acc. to EN 323	m	510-550 kg/m³
Max. deviations in board thickness		± 0.5mm
Embedment strength	$f_{h,k}$	18.0 N/mm
Thermal conductivity	λ	0.09 W/mK
Water vapour permeability	μ	11
Emissions class		E1 – 100% formaldehyde-free binders
Technical class acc. to German Roofers' Association		Under-roof insulating board, cat. A
Utilisation classes acc. to EN V 1995-1-1		1 + 2
Fire resistance class		B2 - normally inflammable
Environmental product declaration as per	ISO 14205	EPD-KRO-20170201-IBC1
Declaration of Performance no. acc. to EU construction products regulation		KPL_WPDP50_CPR_004
Applicable German technical approval		Z-9.1-442

The modification factor k_{mod} and deformation factor k_{def} should be calculated acc. to DIN 1052:2008-12, tables F.1 and F.2 for the panel type „fibreboard MBH.LA2 EN 622-3:2004-07".

The modulus of displacement K_{ser} should be calculated with the aid of table G.1 of DIN 1052:2008-12, lines 4 and 5, while applying a bulk density of $\rho_k = 510 kg/m^3$.

Delivery Programme and Product Overview

Coverage [mm]	Thickness [mm]	Quantity per pallet	Surface area per pallet [m²]
2500 x 675	15	60	101.25



Applications

- Exterior boarding of walls in timber-frame construction
- Reinforcement
- Water-vapour-permeable solutions

Did You Know?

- German technical approval Z-9.1-442
- Storey-high formats reduce trimming scrap
- Faster and easier to lay than individual boards

SWISS KRONO WP50, square-edged

German technical approval Z 9.1-442

The Multifunctional Wall Board

SWISS KRONO WP50 is water-vapour-permeable medium-density fibreboard (MDF) for wall exteriors in timber-frame construction. It is available in storey-high formats and may be used for reinforcing purposes.

Transport and Storage

- Protect the edges to prevent damage.
- Cover panels to protect them from excess moisture and the weather.
- Cover when storing at construction sites.
- To prevent damp from the ground from penetrating panels, place them on wooden sleepers.
- Before installing panels, remove the plastic wrapping and acclimate them at the installation site for about three days.
- Make sure that panels are dry when installed, unless they will be able to immediately re-release any absorbed moisture. Panels can get wet and dry out again without suffering any loss of strength.

Use

- Leave a 3mm expansion joint between adjacent panels.
- Back-block the joints.
- It is not necessary to tape over joints to create a windtight layer.
- Weathering: panels may be exposed to the elements for up to 4 weeks, possibly longer depending on how far the roof extends out over them.
- If an exterior insulation and finishing system (EIFS) will be applies, the substrate should be dry and free of dust (follow the manufacturer's instructions).

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QM-System is certified to
ISO 9001
QS-3281 HH

SWISS KRONO

Technical Data Characteristic values acc. to Z-9.1-442

Nominal thickness [mm]	d	12-15
Strength values [N/mm²]		
Stresses		
Bending	$f_{m,k}$	17
Shear	$f_{v,k}$	0.8
Stiffness values [N/mm²]		
Stresses		
Modulus of elasticity	$E_{m,mean}$ [a]	2700
Shear modulus	G_{mean} [a]	50
[a] The characteristic stiffness values E_{05} and G_{05} are calculated as follows: $E_{05} = 0.9 \times E_{mean}$ and $G_{05} = 0.9 \times E_{mean}$		
Building physics and general values		
Bulk density acc. to EN 323	m	510-550 kg/m³
Max. deviations in board thickness		± 0.5mm
Embedment strength	$f_{h,k}$	18.0 N/mm
Thermal conductivity	λ	0.09 W/mK
Water vapour permeability	μ	11
Emissions class		E1 – 100% formaldehyde-free binders
Utilisation classes acc. to EN V 1995-1-1		1 + 2
Fire resistance class		B2 - normally inflammable
Environmental product declaration as per	ISO 14205	EPD-KRO-20170201-IBC1
Declaration of Performance no. acc. to EU construction products regulation		KPL_WPDP50_CPR_004
Applicable German technical approval		Z-9.1-442

The modification factor k_{mod} and deformation factor k_{def} should be calculated acc. to DIN 1052:2008-12, tables F.1 and F.2 for the panel type „fibreboard MBH.LA2 EN 622-3:2004-07".

The modulus of displacement K_{ser} should be calculated with the aid of table G.1 of DIN 1052:2008-12, lines 4 and 5, while applying a bulk density of $\rho_k = 510 kg/m^3$.

Delivery Programme and Product Overview

Coverage [mm]	Thickness [mm]	Pieces per pallet	Surface area per pallet [m²]
2800 x 1247	15	60	209.5

Built by Paul Riegel Foundation (HARIBO) in Bonn, Germany

Built by MAX-HAUS based in Marienwerder, Germany

General Information on Use

Transport and Handling

- Take steps to prevent boards, and especially unprotected edges, from absorbing large amounts of moisture during transport and installation.
- Protect corners and edges before lifting, moving or stacking (especially with T+G boards).
- Check the labels or producer's documentation on-site to make sure that the following are correct: thickness, approved utilisation class, surface (sanded or unsanded) and edge type (square-edged or tongue-and-groove).
- Whilst installation work is ongoing, boards may be briefly leaned against a solid structure at a 70° angle.
- Always carry individual boards in an upright (vertical) position.

Acclimatisation

- Precondition boards prior to installation.
- Store boards for about three days under the same climatic conditions as those prevailing at the installation site.
- This adjustment to the ambient moisture at the installation site will prevent excessive shrinkage or swelling.

Storage

- Protect boards from exposure to significant moisture or very high relative humidity.
- Prevent boards from directly contacting the ground.
- Only store outdoors temporarily, and if unavoidable cover stacks with watertight but water-vapour-permeable tarpaulins.
- Always stack boards horizontally on pallets and wooden sleepers (spaced up to 600mm apart).
- Align sleepers precisely with one another and parallel to the shorter side of the boards.
- Lay boards so their edges line up (with a maximum overhang of 15mm).

Sawing, Milling, Sanding and Drilling

- SWISS KRONO OSB can be sanded, sawn, milled and drilled just like solid wood using all of the same tools.

Built by MAX-HAUS based in Marienwerder, Germany

A project of BEMA based in Wald-Michelbach, Germany

Laying and Boarding

- For interior or exterior boarding applications, leave expansion gaps at least 3mm wide between boards.
- When laying closely on interior walls with butt joints, leave room for expansion where boards adjoin other structures.
- The storey-high formats are produced with a slightly reduced width (of 1247mm) to allow for expansion.

Nailing, Stapling, Screwing and Gluing

- SWISS KRONO OSB can be attached to wooden studs and rafters using screws, nails or staples.
- Use in accordance with official approvals (Z-9.1-618 and Z-9.1-503 in Germany) and/or standards (DIN 1052 or EN 1995-1-1 (EC 5)).
- Additionally bond or glue tongue-and-groove joints.

Coating and Painting

- SWISS KRONO OSB with a ContiFinish® face may be coated with a solvent-containing PU (DD) or synthetic-resin varnish.
- Sanded surfaces may be coated like normal wood (e.g. with varnishes, paints, oils, waxes and glazes).
- It is advisable to apply at least three coats, sanding after the first one.
- Application of at least three coats is recommended.
- The only way to achieve an absolutely smooth surface is to apply filler.

Important Note on Coating and Painting!

When coating SWISS KRONO OSB with oil or hard wax oil, ingredients in the oil may interact with natural wood resins in the SWISS KRONO OSB. This can result in an intense odour that persists for quite a while. We therefore recommend that you consult the manufacturer of the oil or hard wax oil before using it.

For more information on use, visit www.swisskrono.de. Select “English” as the language, then click on the top tab at the far left. Then choose “Building Materials”.

Built by MAX-HAUS based in Marienwerder, Germany

swisskrono.de

PRODUCT OVERVIEW FOR SWISS KRONO MDF/HDF

We develop and produce our eco-friendly engineered wood products with the goals of protecting the environment, promoting sustainability and, above all, enabling homes that are healthy to live in. SWISS KRONO MDF boards are our multifunctional specialists for the entire range of interior uses. Whether raw or coated, every SWISS KRONO MDF product excels with unique properties.
For more information: **www.swisskrono.de**

	 **SWISS KRONO MDF raw** Acc. to customer specifications, thicknesses from 6 to 38mm are possible	 **SWISS KRONO MDF Moulding** Acc. to customer specifications, thicknesses from 6 to 19mm are possible
	The all-rounder for interior finishing, ideal for further processing	The ideal design specialist with MDF deep-drawing quality
Product description	Produced mainly from debarked pine and spruce wood, SWISS KRONO MDF excels with uniformly high-grade fibre and a light colour. This versatile high-quality product is an ideal choice for all uses in which solid wood or other engineered wood products would be less appropriate or entirely unsuited. The fine fibre structure of this classic material makes it excellently suited for further finishing.	SWISS KRONO MDF Moulding is ideal for decorative elements for furniture and interior finishings. It supports extremely fine, intricate milling work, making it the perfect choice for 3D furniture fronts as well as decorative ceiling and wall panels. These MDF panels are also a high-quality alternative to solid timber.
Properties	Bulk density of approx. 690-810kg/m^3 ▪ Fine fibre structure ▪ High bending and transverse tensile strength	▪ Highly compacted, very fine fibre structure ▪ Enables highly intricate milling work and versatile coatings
Uses	Interior finishing, furniture, shop fittings, trade fair stands	3D furniture fronts, doors, panelling
Benefits	Ideal for ▪ Painting, coating, veneering, lamination or sheathing ▪ Drilling and milling	▪ Suitable for all living areas ▪ A high-quality, economic alternative to solid timber

CE
EN 13986
2004

MANAGEMENT SYSTEM CERTIFICATION
DNV·GL
ISO 9001 = ISO 14001
ISO 50001

PEFC
PEFC/ 04-35-0010

SWISS KRONO

SWISS KRONO MDF
Panel quality
Acc. to customer specifications

Special MDF for making coated and milled panels

SWISS KRONO HDF
Acc. to customer specifications

A strong base for strong floors

Product description	These panelling grade MDF boards let you easily and inexpensively shape, sheath, veneer and laminate strips, mouldings and panels. They are a fully fledged alternative to solid wood for these applications.	Under laminate, cork or vinyl, SWISS KRONO HDF is a strong base for strong floors. Amongst other things, SWISS KRONO HDF boards between six and 12mm thick serve as the core material of top-quality SWISS KRONO laminate floors.
Properties	Complete, cost-effective alternative to solid wood for making skirting boards etc.	▪ High bulk density of 870kg/m^3 ▪ Board thicknesses between 6 and 12mm
Uses	Panels for interior finishing	Cores for laminate and other flooring types
Benefits	▪ Low weight ▪ Long tool lives ▪ Highly suited for profiling and contouring	▪ Extremely robust ▪ Excellent swelling and strength values

Built by ERNE AG Holzbau based in Aargau, Switzerland,
Photographer: Thomas Koculak

SWISS KRONO Feel-Good Reference Projects

SWISS KRONO: Large-Format Modular Building

A new campus for 2,000 secondary school students in Frankfurt, Germany comprises a classroom building, a dining hall and a gymnasium. For the moment at least, it is Europe's largest school assembled from prefabricated timber modules.

Rapid construction, good protection from summertime heat, excellent acoustic insulation and exposed wood indoors: these were the requirements stipulated by the city of Frankfurt. And they got what they wanted!

Built by MMD, based in Poppenhausen, Germany
Photographer: www.tmstudios.de

SWISS KRONO: New Building with **MAGNUM**BOARD® OSB

The popular summer toboggan run in Pottenstein in northern Bavaria has gained a new building with a restaurant and kitchen.

The construction project was completed in a very short time thanks to the use of SWISS KRONO **MAGNUM**BOARD® OSB.

This massive timber construction system won the contract due to its high degree of prefabrication and fast assembly. The modules arrived on site with all of the recesses premade for windows, doors, cable conduits and the like, which greatly accelerated the assembly and finishing work on site.

Built for the Paul Riegel Foundation (HARIBO) in Bonn, Germany

SWISS KRONO

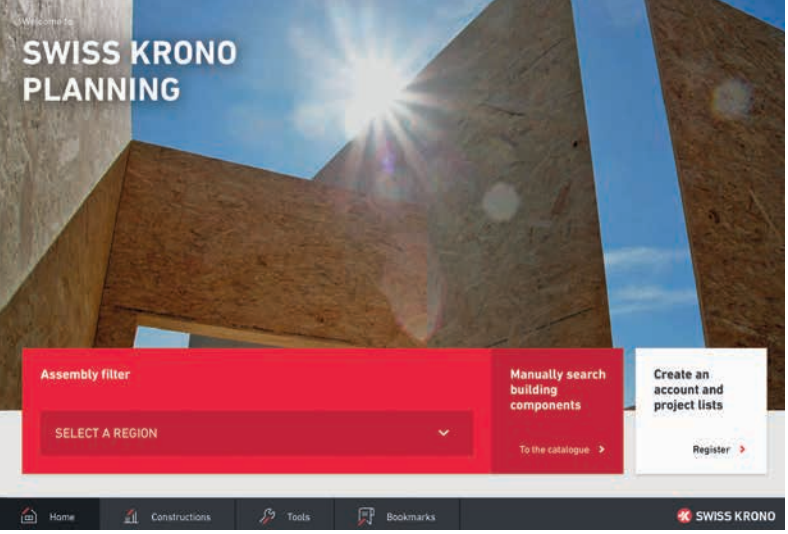
New Timber-Frame Daycare Centre in Bonn

The construction of daycare centres poses special challenges. This one in Bonn, built for the Paul Riegel Foundation (HARIBO), primarily had to be state-of-the-art in terms of energy efficiency. Around 600m³ of SWISS KRONO OSB/3 were installed to reinforce the walls against lateral forces, thus greatly enhancing the stability and load-bearing capacity of the individual storeys.

Built by Sauter Zimmerei Holzbau based in Balingen, Germany

Sophisticated Modern Timber Architecture: Healthy and Eco-Friendly

The clients knew from the start that they wanted their new home to be built using resource-conserving engineered wood materials. And products from SWISS KRONO were the natural choice. All of the exterior walls were reinforced with SWISS KRONO OSB/3, for example.



timberplanner.com

The SWISS KRONO Timber Planner is a digital planning tool for timber construction. Architects, engineers, planners and tradespeople can use it to easily find the right building components, structures or modules for projects. Various filters, like for the building class, current regional requirements, project type, and acoustic and fire insulation specifications, quickly lead you to the right one. Components can also be checked on the basis of their U-value, condensation and structural strength. You can create your own projects and easily send component descriptions to merchants or tradespeople. Technical specifications for selected components can be downloaded, flexibly adjusted or reused, and exported as BIM-compatible files.

317 Possibilities

Starting with more than 300 possible components, self-explanatory filters let you systematically narrow your search to the ones that most closely match your expectations and the requirements of your construction project. You can filter them on the basis of, for example:

- Region
- Building type
- Building class
- Component
- Acoustic insulation and fire protection requirements
- Fire protection requirements mandated by the current building codes of all German federal states
- Preselection of specific components to take acoustic insulation standards into account

Narrow Your Search with Sliders

The displayed results always meet the previously defined minimum requirements. If your search yields a long list of possibilities, can easily narrow them down by using sliders to increase, for example, the required acoustic insulation and impact sound levels. You can also raise the resistance to fire class to above the legally prescribed minimum. This way you wind up with a manageable set of possibilities for making your final choice.

Detailed Information on Every Component

If you want additional information on one of the displayed results, simply click on it to open a page with all details and technical values pertaining to it, including acoustic insulation and fire protection:

- A “basic component” tab shows all information on layers, properties and minimum requirements.
- A “sound insulation” tab displays all relevant information on this aspect.
- A “fire protection” tab lists all possible fire classes and any additional requirements for them.

Here you can download a catalogue of specifications for issuing invitations to tender bids, or else export exterior building components to the structural engineering tools.

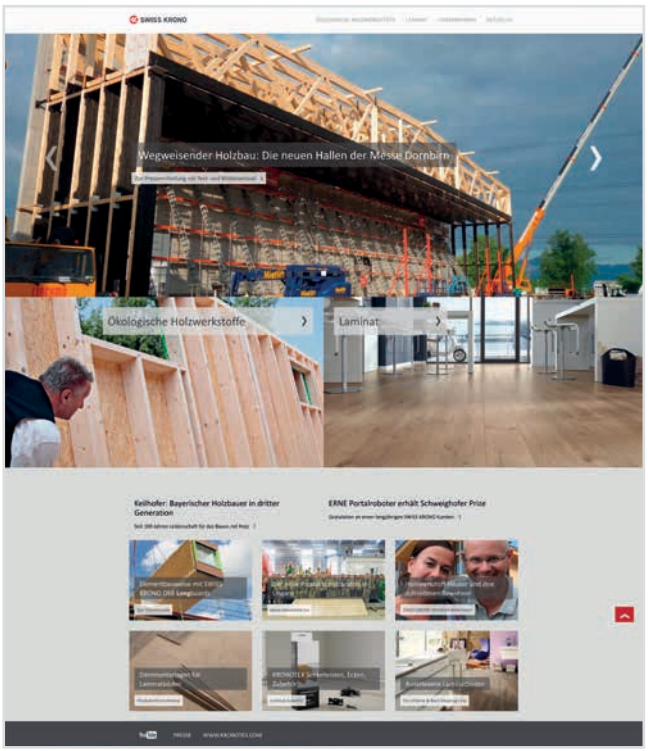
Integrated Calculation Tools

You can then use integrated tools to instantly calculate the U-value and structural values or check the condensation – naturally according to the applicable DIN requirements. Parameters for the products used can be optimised or additional layers added.

Export Possibilities

In the Web app, you can create your own projects and easily send the information on one or more components to timber merchants or tradespeople, for example. All components can be downloaded as BIM-compatible 3D graphics and freely edited. A descriptive text is also available on each one, which you can also download and use as you see fit.

More Service from Us, Greater Success for You



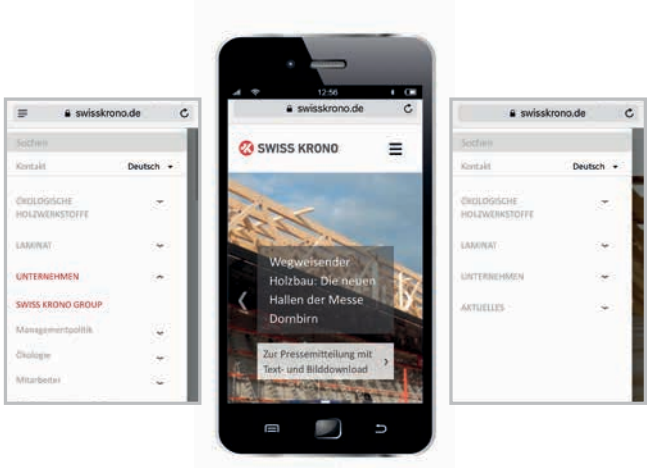
SWISS KRONO on the internet

The SWISS KRONO website also adds value with a wealth of practical information. It's easy, straightforward and quick for you to access product information, news, services, special features and downloads. You can take advantage of the following content 24/7:

- Information materials
- Data sheets
- Certificates
- Construction details
- Condensation calculator
- Trade fairs and other events
- Environment and sustainability
- References
- Delivery programme
- Bidding documents
- U-value calculator
- Contacts
- ... and much, much more!

SWISS KRONO Is Mobile

The new mobile website at **m.swisskrono.de** makes it easy for you to access and view all information about SWISS KRONO and our innovative products from anywhere using your smartphone!



Telephone Hotline

Ring our Service Hotline to get advice and tips on all products, issues and installation methods. You can reach our experts from Monday to Thursday between 8 am and 5 pm (Central European Time) and on Fridays until 2.30 pm.

Service Hotline: +49 (0) 800 5 76 66 96

SWISS KRONO

GERMANY

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