

Wood at its best



GERMANY



EN

ENGINEERED WOOD PRODUCTS

Innovation & Respect for Nature
Complete OSB Portfolio

WESEN



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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 11 plants in eight countries (Switzerland, Germany, France, Poland, Ukraine, Russia, Hungary and the USA), setting international standards as members of a united corporate family.

We offer customer-oriented solutions with innovative, eco-friendly materials 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

We work hard day in and day out to make our product portfolio even more innovative, more functional and more 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 keep asking 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, houses can be even healthier to live in!"

SWISS KRONO OSB:
an innovative engineered wood product

www.swisskrono.de

SWISS KRONO GmbH 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





DELIVERY PROGRAMME

Format [mm]	Thickness [mm]									
	9	10	12	15	18	22	25	30	40	
	Quantity per pallet									
SWISS KRONO OSB										
SWISS KRONO OSB/3 EN300 square-edged ContiFinish®	2500 x 1250	100	*	76	60	52	42	38	*	24
	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		
SWISS KRONO OSB/4 BAZ sanded, German technical approval Z9.1-503	15,000 x 2800								30 per truck	
MAGNUMBOARD® OSB RAW BOARD	18,000 x 2800								25 per truck	
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



Format [mm]	Thickness [mm]		
	12	18	20

SWISS KRONO OSB

Format [mm]	Thickness [mm]	Quantity per pallet
SWISS KRONO OSB anti-termite, square-edged * ContiFinish®	2800 x 1196	78
SWISS KRONO OSB anti-termite, T+G* ContiFinish®	2400 x 675 T+G on all 4 edges	52
SWISS KRONO OSB Formwork Formwork Panels Film-finished on both faces	1250 x 2500	46
	2070 x 2800	24
SWISS KRONO OSB QuicklyBoard, square-edged ContiFinish®	2500 x 1250	46

Special formats and thicknesses on request
* only from SWISS KRONO SAS (France)

Format [mm]	Thickness [mm]											
	6	8	10	12	15	16	18	19	22	25	28	30

SWISS KRONO MDF

SWISS KRONO MDF - raw *	2800 x 2070	70	60	50	45	25	25	25	25	20	10	10	10	
	4100 x 2070			35	25	25	25	20	10					
	5600 x 2070					25	25							
SWISS KRONO MDF - Moulding *	2800 x 2070					30	25							
SWISS KRONO MDF - Panel Quality *	As specified by customer													
SWISS KRONO HDF *	As specified by customer													
SWISS KRONO DP50, T+G	2500 x 675	LiquiSafe, T+G on all 4 edges											60	
SWISS KRONO WP50, square-edged	2800 x 1247													60

Special formats and thicknesses on request
* on request



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 an on-site power plant. The electricity generated is used on the premises or sold to the grid.



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 strands or strips of wood, called flakes, that are layered in different directions. 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 four plies: a two-layer core sandwiched between two surface layers. To optimally stabilise the finished boards, the natural wood strands of the cover layers are aligned in the direction of production. The strips that go into the two-ply core layer run crosswise. 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 tiny 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 and Hungary.

Always Ahead of the Game

SWISS KRONO have a long tradition of innovation. A good example is 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 extra-long OSB boards

SWISS KRONO OSB/3 and SWISS KRONO OSB/F**** can both be produced with board lengths of between 6.501 and 18 metres.

The main benefit of using these very long boards with a surface area of up to about 50m² 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 **MAGNUMBOARD®** 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
- Commercial construction
- Industrial buildings
- Vertical extensions
- Urban construction projects
- Refurbishment to improve energy efficiency
- Modular and panelised construction

SWISS KRONO OSB: an Optimal Team Player

Protection from the Cold

When the thermometer drops below freezing in winter, roof and wall constructions incorporating insulation and SWISS KRONO OSB save valuable energy. Airtight, water-vapour-permeable SWISS KRONO OSB/3 and SWISS KRONO OSB/F**** additionally enhance this effect. In combination, these building materials shield living space from low outdoor temperatures.

Protection from Noise

Working as a team, SWISS KRONO OSB and insulation effectively block outside noise. Numerous tested constructions are available to use as models. Thanks to their outstanding sound-absorbing properties, they swallow external noise for more relaxed living.

Protection from Moisture

SWISS KRONO OSB/3 and SWISS KRONO OSB/F**** are airtight and inhibit the passage of water vapour, thus providing maximum protection from moisture. They enable water-vapour-permeable constructions without the need for membranes or vapour barriers.

Protection from Fire

General test certificates from officially accredited institutes confirm that SWISS KRONO products are suitable for cost-effectively making water vapour-permeable exterior walls which meet the prerequisites for F30 fire rating. Other constructions that meet the fire protection requirements of DIN 4102-4 can also be implemented with them.

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 wood 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 loadbearing and reinforcing constructions.



Built by MAX-HAUS based in Marienwerder, Germany

SWISS KRONO OSB: the Sustainable Energy-Storing Product

Positive Environmental Balances

In addition to boasting outstanding constructive properties, SWISS KRONO OSB products also actively help protect the earth's climate. Each cubic metre of SWISS KRONO OSB stores about 1000kg of CO₂ 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 can be described as energy-conserving products, as they store more energy than it takes to produce them. In addition, all SWISS KRONO engineered wood products are 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 CO₂ emitted when you drive your car.

It can take the following amounts of natural and engineered wood to build a typical 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 CO₂. In return you could drive a VW Golf BlueMotion, which according to Volkswagen emits 99g of CO₂ per kilometre, a distance of about 245,454km.

Built by MAX-HAUS
based in Marienwerder, Germany





Built by Holzbau Kühlborn based in Spangenberg, Germany

SWISS KRONO OSB: a Team Player for Robust 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/m³.

Built by Hubert Schmid Bauunternehmen based in Marktobendorf, Germany



Highly Specialised System Modules

Roofs and exterior walls pose considerable requirements with regard to strength and stability. Professionally planned, executed and coordinated system modules are essential for ensuring optimal roof and wall constructions.

SWISS KRONO: Information and Examples for Downloading

You'll find a wide variety of detailed information sheets with technical data, news and examples in the download section of our website (go to "Building Materials", then click "Downloads" under "Advertising Materials" and select "Forms and data sheets" in the list):

- A data sheet with information to help you compare SWISS KRONO OSB with supposedly similar chipboard products
- A data sheet with an example of how SWISS KRONO OSB can be used as an airtight layer
- A data sheet with news and tips on the use of SWISS KRONO OSB in flat roofs
- Data sheets on the use of SWISS KRONO OSB beneath metal coverings (in flat, pitched and slate roofs)
- A data sheet that concisely presents the benefits of using SWISS KRONO OSB



Benefits of Wood at a Glance

- The only renewable construction material
- Excellent carbon footprint
- From loadbearing structures to exteriors, almost everything can be made with it
- Excellent properties: strong, compression-proof, lightweight, durable, elastic, airtight
- Moisture-regulating for a pleasant indoor climate



SWISS KRONO OSB: the Innovative All-Rounder

Safe, Eco-Friendly Packaging

If you choose SWISS KRONO OSB as your packaging material, you'll be protecting both your products and the environment. SWISS KRONO OSB meets the stringent requirements of the packaging industry with its excellent technical properties, and our eco-friendly SWISS KRONO OSB/F**** is a certified high-tech product which is suitable in every respect for packaging food.

SWISS KRONO OSB even meets the strict import rules that some countries, such as China, have imposed on wood packaging: any insects or germs present are reliably exterminated during pressing at temperatures of about 200°C in our Conti-Roll® system.





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 BALAZS Komforthaus based in Windsbach, Germany



Thanks to extensive prefabrication, the **MAGNUMBOARD® 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 **MAGNUMBOARD® 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 **MAGNUMBOARD® 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 **MAGNUMBOARD® 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. **MAGNUMBOARD® 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

Benefits at a Glance

- Minimum of joints
- Simplified production and prefabrication
- Cost-effective, fast construction with large-format elements
- Long-lived bespoke buildings
- Slender walls



Built by BALAZS Komforthaus
based in Windsbach, Germany

Uses for **MAGNUMBOARD® OSB** and **SWISS KRONO LONGBOARD OSB**

The **MAGNUMBOARD® OSB** modules and those made with **SWISS KRONO LONGBOARD 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 can be very easily dismantled when no longer needed and reused elsewhere. Their thermal and acoustic insulation is significantly better than that of the traditionally used 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.

www.swisskrono.de

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 summer and winter.

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 ERNE AG Holzbau based in Aargau, Switzerland





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

Finishing of **MAGNUMBOARD®** OSB: No Extra Boards Needed

Plaster, wallpaper, tiles or paint: interior surfaces made of SWISS KRONO **MAGNUMBOARD®** OSB can be directly finished without the need to cover them with extra boards 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 **MAGNUMBOARD®** OSB

Whereas it is still necessary to cover glulam with gypsum plasterboard or the like before applying paint, tiles, wallpaper or plaster, SWISS KRONO **MAGNUMBOARD®** 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 gypsum fibreboard to serve as a buffer. Using SWISS KRONO **MAGNUMBOARD®** 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 fibreboard 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
MAGNUMBOARD® OSB

Glulam

Work for an interior wall (both sides)

- | | |
|--|--|
| <ul style="list-style-type: none"> ▪ 2x Apply wash and insulating primer ▪ 2x Apply interior plaster ▪ 2x Paint (if required; coloured plaster may be used instead) | <ul style="list-style-type: none"> ▪ 2x Cut gypsum plasterboard sheets to size and attach them ▪ 2x Fill and sand joints and the fasteners for the gypsum 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)

- | | |
|--|--|
| <ul style="list-style-type: none"> ▪ 1x Apply wash and insulating primer ▪ Additional work at window jambs | <ul style="list-style-type: none"> ▪ 1x Cut gypsum plasterboard sheets to size and attach them ▪ 1x Fill and sand joints and the fasteners for the gypsum 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 **MAGNUMBOARD®** 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 according to the guidelines of the German carpentry organisation "Holzbau Deutschland – Bund Deutscher Zimmermeister" and the German Central HVAC Association (ZVSHK).



Topics/Segments/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.

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

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.





Built by MAX-HAUS based in Marienwerder, Germany



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

Topics/Segments/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.

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 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 (MFGA).

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 MFGA.



Built by Sauter Zimmerei-Holzbau based in Balingen, Germany



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

Topics/Segments/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 GmbH 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 [m³/hm²] 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 GmbH:

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: $361.6 \times 0.14 = 50.6 \text{ m}^3/\text{h}$. The total contained volume of the house is 724.50 m^3 . This yields an air exchange rate of $n_{50} = 50.6 / 724.5 = 0.07 \text{ [h-1]}$, 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 Marktobendorf, Germany



The SWISS KRONO Feel-Good House

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.

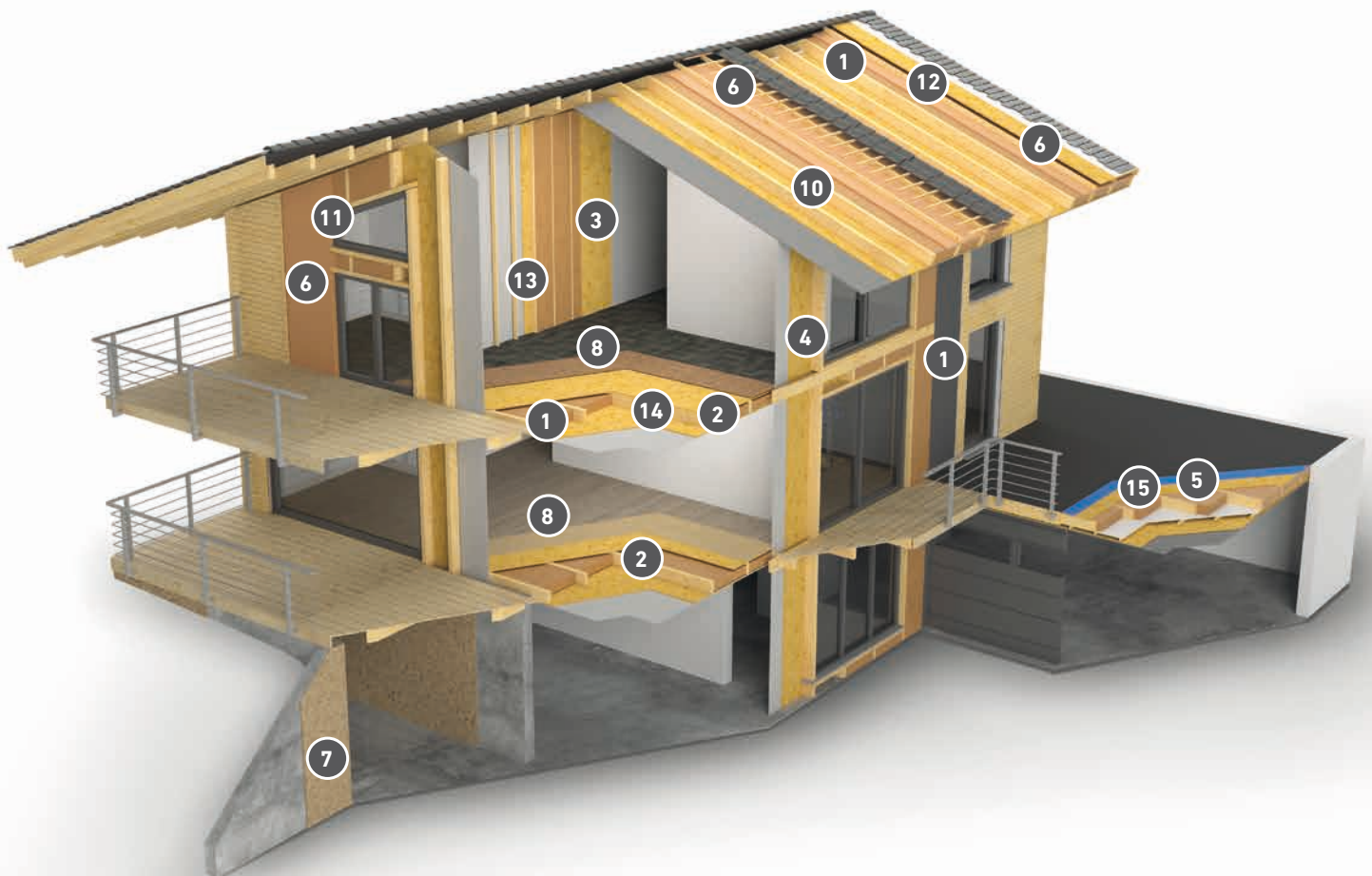
All SWISS KRONO system modules are intelligently designed down to the tiniest detail and have proved themselves in practice. Because the roof, wall and ceiling elements are largely prefabricated, it takes only between one and three days to assemble a raintight SWISS KRONO feel-good house. The exclusive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



Built by Bema based in Wald-Michelbach, Germany

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.

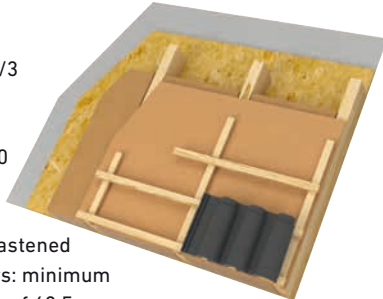
You can find more system versions, information on use and detailed data on our SWISS KRONO **system products** on the internet at www.swisskrono.de.



10 SWISS KRONO Between-Rafters Insulation System module K01018

From the inside out:

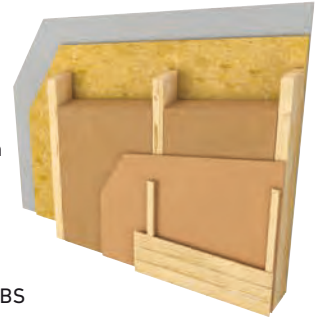
- 12.5mm of gypsum fireboard
- 18mm of SWISS KRONO OSB/3 or SWISS KRONO OSB/F****
- Rafters / insulation
- 15mm of SWISS KRONO DP50
- Counterbattens/battens
- F30-B acc. to DIN 4102-4, table 66, gypsum fireboard fastened at least every 400mm, rafters: minimum width of 40mm, max. spacing of 62.5cm



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

From the inside out:

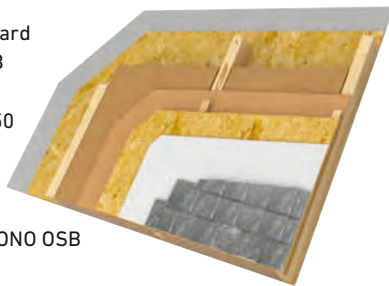
- 9.5mm of plasterboard
- 12mm of SWISS KRONO OSB/3 or SWISS KRONO OSB/F****
- Solid construction timber / insulation
- 15mm of SWISS KRONO DP50 or WP50
- Counterbattens
- Curtain wall, e.g. clapboard
- F30-B acc. to AbP P-3014/7701-MPA BS



12 SWISS KRONO OSB Under Shale Roofing System module K01333

From the inside out:

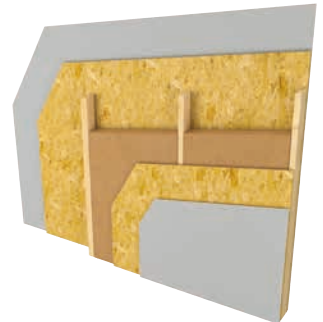
- 9.5mm of gypsum plasterboard
- 15mm of SWISS KRONO OSB
- Insulation / rafters
- 15mm of SWISS KRONO DP50
- 30mm of counterbattens (ventilated cavity with a max. length of 15m)
- At least 22mm of SWISS KRONO OSB
- Membrane
- Shale roofing



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

From the inside out:

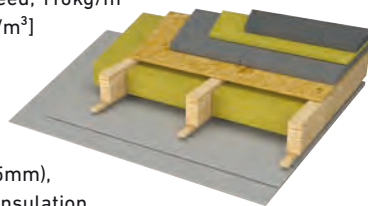
- 9.5mm of plasterboard
- 15mm of SWISS KRONO OSB/3 or SWISS KRONO OSB/F****
- 80mm of solid construction timber / insulation
- 15mm of SWISS KRONO OSB/3 or SWISS KRONO OSB/F****
- 9.5mm of plasterboard
- F30-B acc. to DIN 4102-4, table 50



14 SWISS KRONO Ceiling Screed and suspension

From the top down:

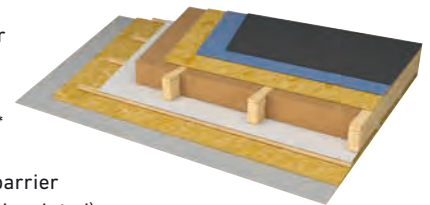
- 55mm of floating anhydrite screed, 110kg/m²
- 30mm of glass wool (min. 6MN/m³)
- 60mm of cement-fibre plate (120kg/m²)
- 25mm of SWISS KRONO OSB/3 or SWISS KRONO OSB/F****
- 280mm x 140mm joists (e = 625mm), between them 200mm of fibre insulation $5 \geq r \geq 35$ [kPa*s/m²]
- 20mm of rubber-cushioned suspended ceiling hangers, b = 60mm (e.g. Ampack, Fermacell, Knauf or Protektor)
- 27mm of wood battens, b = 6mm
- 2 x 15mm of plasterboard (e.g. Knauf or Rigips)



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 products were combined in the SWISS KRONO feel-good house shown on the left:

- 1 Thermal insulation
- 2 Acoustic insulation
- 3 SWISS KRONO OSB/3 T+G, sanded on both sides
- 4 SWISS KRONO OSB/F****, square-edged - ContiFinish®
- 5 SWISS KRONO OSB/F**** T+G - ContiFinish®
- 6 SWISS KRONO DP50/WP50
- 7 SWISS KRONO QuicklyBoard OSB/3
- 8 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.

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



Technical Data Characteristic values acc. to EN 13986

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

Strand direction of face layer Nominal thickness [mm]	d	Major axis			Minor axis		
		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_{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: $E_{05} = 0.85 \times E$ and $G_{05} = 0.85 \times G$
Building physics and general values

Bulk density acc. to EN 323	m	≥ 600 kg/m ³					
Max. deviations in board thickness	± 0.8 mm (ContiFinish®) ± 0.3 mm (sanded)						
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	μ	200 (moist) / 300 (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 m ³ /hm ²						
Waste code	EWC	03 01 05					
Emissions class	E1 – 100% formaldehyde-free binders (< 0.03 ppm)						
Environmental product declaration as per ISO 14205 and EN 15085	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 CPR	KDE_OS/3_CPR_2016_039						

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 (LONGBOARD 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)
- For reinforcing roofs (application class 2 as per EN 1995-1-1)
- As loadbearing 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.



13
1034
EN 13986



A project of BEMA based in Wald-Michelbach, Germany



www.swisskrono.de

Built by Sauter Zimmerei-Holzbau based in Balingen, Germany



Technical Data Characteristic values acc. to EN 13986

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

Strand direction of face layer Nominal thickness [mm]	d	Major axis			Minor axis		
		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_{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: $E_{05} = 0.85 \times E$ and $G_{05} = 0.85 \times G$
Building physics and general values

Bulk density acc. to EN 323	m	≥ 600 kg/m ³
Max. deviations in board thickness		± 0.8 mm (ContiFinish®) ± 0.3 mm (sanded)
Thermal conductivity acc. to EN 13986	λ	0.13 W/mK
Water vapour permeability	μ	200 (moist) / 300 (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 m ³ /hm ²
Waste code	EWC	03 01 05
Emissions class		E1 – 100% formaldehyde-free binders (< 0.03 ppm)
Environmental product declaration as per ISO 14205 and EN 15085		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 CPR		KDE_OS/3_CPR_2016_039

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 power tools available from DIY markets, 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 a minimum of three 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 solid 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.



13
1034
EN 13986



Built by NOAH Haus GmbH based in Heede, Germany



Technical Data Characteristic values acc. to EN 13986

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

Strand direction of face layer Nominal thickness [mm]	d	Major axis			Minor axis		
		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_{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: $E_{05} = 0.85 \times E$ and $G_{05} = 0.85 \times G$
Building physics and general values

Bulk density acc. to EN 323	m	≥ 600 kg/m ³
Max. deviations in board thickness		± 0.8 mm (ContiFinish®) ± 0.3 mm (sanded)
Thermal conductivity acc. to EN 13986	λ	0.13 W/mK
Water vapour permeability	μ	200 (moist) / 300 (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 m ³ /hm ²
Waste code	EWC	03 01 05
Emissions class		E1 – 100% formaldehyde-free binders (< 0.03 ppm)
Environmental product declaration as per ISO 14205 and EN 15085		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 CPR		KDE_OS/3_CPR_2016_039

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 loadbearing 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.

A project of NOAH Haus GmbH based in Heede, Germany



Technical Data Characteristic values acc. to EN 13986

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

Strand direction of face layer Nominal thickness [mm]	d	Major axis			Minor axis		
		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_{Mmean}^a		6500			3000	
Shear modulus	G_{mean}^a		100			100	
Plate loads							
Bending modulus of elasticity	E_{Mmean}^a		3500			2500	
Tensile modulus of elasticity	E_{Tmean}^a		3500			2500	
Bulk modulus of elasticity	E_{Cmean}^a		3500			2500	
Shear modulus	G_{mean}^a		1000			1000	

^a The characteristic stiffness values E_{05} and G_{05} are calculated as follows: $E_{05} = 0.9 \times E_{mean}$ and $G_{05} = 0.9 \times G_{mean}$
Building physics and general values

Bulk density acc. to EN 323	m	620 kg/m ³					
Max. deviations in board thickness		± 0.4 mm					
Embedment strength	perm. σ_1	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	μ	200 (moist) / 300 (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 m ³ /hm ²					
Waste code	EWC	03 01 05					
Emissions class		E1 – 100% formaldehyde-free binders (< 0.03 ppm)					
Environmental product declaration as per ISO 14205 and EN 15085		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 CPR		KDE_OSB/F4S_CPR_2016_040					
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 (LONGBOARD 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 Built 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



Technical Data Characteristic values acc. to EN 13986

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

Strand direction of face layer Nominal thickness [mm]	d	Major axis			Minor axis		
		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_{Mmean}^a		6500			3000	
Shear modulus	G_{mean}^a		100			100	
Plate loads							
Bending modulus of elasticity	E_{Mmean}^a		3500			2500	
Tensile modulus of elasticity	E_{Tmean}^a		3500			2500	
Bulk modulus of elasticity	E_{Cmean}^a		3500			2500	
Shear modulus	G_{mean}^a		1000			1000	

^a The characteristic stiffness values E_{05} and G_{05} are calculated as follows: $E_{05} = 0.9 \times E_{mean}$ and $G_{05} = 0.9 \times G_{mean}$
Building physics and general values

Bulk density acc. to EN 323	m	620 kg/m ³					
Max. deviations in board thickness		± 0.4 mm					
Embedment strength	perm. σ_1	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	μ	200 (moist) / 300 (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 m ³ /hm ²					
Waste code	EWC	03 01 05					
Emissions classe		E1 – 100% formaldehyde-free binders (< 0.03 ppm)					
Environmental product declaration as per ISO 14205 and EN 15085		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 CPR		KDE_OSB/F4S_CPR_2016_040					
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	*	•	•	•	•	
6250 x 675 T+G on 2 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 particle-board, 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.



Technical Data Characteristic values acc. to EN 13986

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

Strand direction of face layer Nominal thickness [mm]	d	Major axis		Minor axis	
		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_{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: $E_{05} = 0.85 \times E$ and $G_{05} = 0.85 \times G$
Building physics and general values

Bulk density acc. to EN 323	m	600 kg/m ³
Max. deviations in board thickness		± 0.8 mm
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
Environmental product declaration as per ISO 14205 and EN 15085		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 CPR		KDE_KH_CPR_2017_038

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	•	•	•	•	•



Built by 3BTEC Holzbau GmbH based in Ludwigsfelde, Germany

Did You Know?

All products of the SWISS KRONO **MAGNUMBOARD**® 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, **MAGNUMBOARD**® OSB raw board

The Fast, Innovative Building System

SWISS KRONO **MAGNUMBOARD**® 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 **LONGBOARDS** 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 **MAGNUMBOARD**® 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 **MAGNUMBOARD**® 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.



Technical Data Characteristic values acc. to EN 13986

Strand direction of face layer		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_{Mmean}^a	7500	3500
Shear modulus	G_{mean}^a	70	90
Plate loads			
Tensile modulus of elasticity	E_{Mmean}^a	3500	3000
Bulk modulus of elasticity	E_{Mmean}^a	3500	2500
Shear modulus	G_{mean}^a	1100	1100

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

Building physics and general values

Bulk density acc. to EN 323	m	620 kg/m ³
Max. deviations in board thickness		± 0.8 mm
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	μ	200 (moist) / 300 (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)
Environmental product declaration as per ISO 14205 and EN 15085		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
Applicable German technical approval		Z-9.1-503
Declaration of Performance no. acc. to CPR		KDE_OS/4_CPR_2016_041

Delivery Programme and Product Overview

Format [mm]	Thickness [mm]
	25

15,000 x 2800	•
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18,000 x 2800	•
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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 That 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.



Technical Data Characteristic values acc. to EN 13986

Strand direction of face layer Nominal thickness [mm]	d	Major axis			Minor axis		
		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: $E_{05} = 0.85 \times E_{mean}$ and $G_{05} = 0.85 \times G_{mean}$

Building physics and general values

Bulk density acc. to EN 323	m	600 kg/m ³
Max. deviations in board thickness		± 0.8 mm (ContiFinish®) ± 0.3 mm (sanded)
Thermal conductivity acc. to EN 13986	λ	0.13 W/mK
Water vapour permeability	μ	200 (moist) / 300 (dry)
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

Format [mm]	Thickness [mm]	
	12	18
2800 x 1196 square-edged	•	•
2400 x 675 T+G on all 4 edges		•



Applications

- As general-use concrete formwork
- As structured formwork for exposed concrete surfaces (e.g. walls and ceilings)
- As foundation and ceiling edge formwork
- An inexpensive alternative to left-in-place formwork and falsework (for base slabs etc.)
- For covering structures to protect them from damage
- For building temporary construction site fences or propping up structures



SWISS KRONO OSB Formwork

The Product

SWISS KRONO OSB Formwork is a formwork board faced with 425gsm phenolic film for economic use in a wide range of applications. This makes it indispensable at every construction site.

Properties

The resistant surface is easy to clean and facilitates stripping, resulting in a matt, uniform concrete surface.

Use

SWISS KRONO OSB Formwork can be fixed using screws, nails or staples and is easy to saw, cut and work. Provided that it is properly pre-treated and cleaned, OSB Formwork panels are very easy to strip and can be reused multiple times. After several uses, the strand structure of the OSB board behind the phenolic-resin-saturated paper begins to imprint itself on the surface of the concrete.

Before initial use, the panels should be treated twice with a suitable release oil. The second coat can be applied as soon as the first is dried. (Make sure to follow the oil producer's instructions).

Your Benefits at a Glance

- Secure holding of screws, staples and nails
- High dimensional stability for sturdy, reliable constructions
- Bonded without formaldehyde
- Made predominantly from PEFC-certified forest thinnings
- Faced on both sides with phenolic film (425gsm)
- Improved strength, also at panel edges
- Excellent shape retention



Technical Data Characteristic values acc. to EN 13986

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

Strand direction of face layer Nominal thickness [mm]	d	Major axis		Minor axis	
		>10-18	>18-25	>10-18	>18-25
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	
Stiffness values [N/mm²]					
Stresses					
Bending modulus of elasticity	E_{mean}^a	4930		1980	
Shear modulus	G_{mean}^a	50		50	

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

Building physics and general values

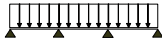
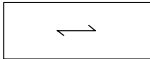
Thickness swelling acc. to EN 317		≤ 15%
Coefficient of expansion for 1% change in wood moisture		0.03%
Waste code	EWC	03 01 05
Reaction to fire performance class acc. to EN 13501-1		D - s2, d0

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]
	20
1250 x 2500	•
2070 x 2800	•

Permissible Concrete Pressures

Three-field system		
	Lengthwise	Crosswise
Grain		
Support spacings	Lengthwise	Crosswise
200mm	95 kN/m ²	37 kN/m ²
250mm	48 kN/m ²	19 kN/m ²
300mm	28 kN/m ²	11 kN/m ²
350mm	17 kN/m ²	7 kN/m ²
400mm	11 kN/m ²	4 kN/m ²



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

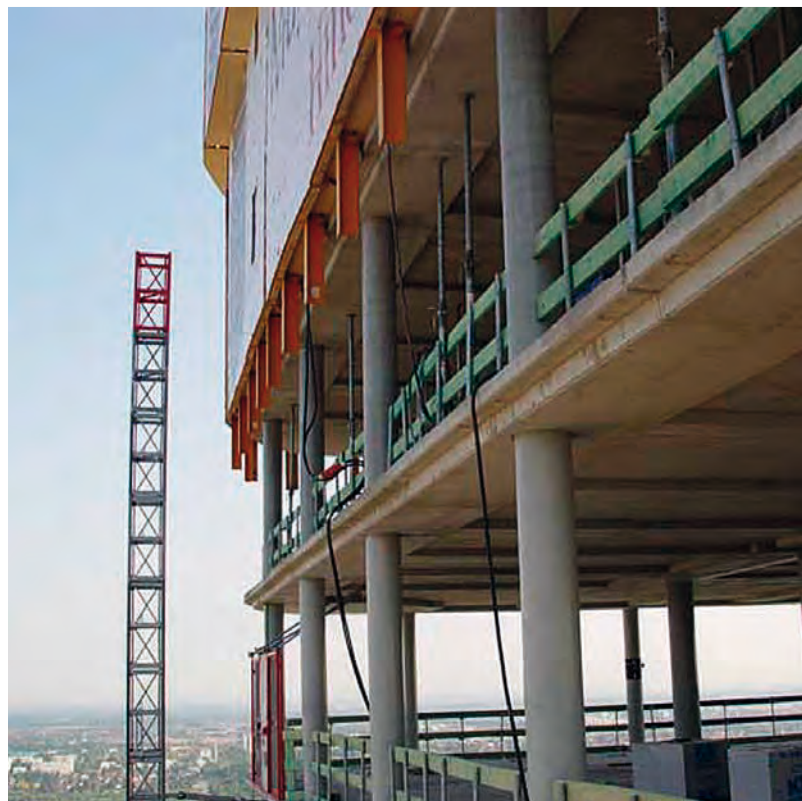
An All-Rounder for Construction Projects

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.



Technical Data Characteristic values acc. to EN 13986

Strand direction of face layer		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_{Mmean}^a	4930	1980
Shear modulus	G_{mean}^a	50	50
Plate loads			
Modulus of elasticity	E_{Mmean}^a	3800	3000
Shear modulus	G_{mean}^a	1080	1080
^a The characteristic stiffness values E_{05} and G_{05} are calculated as follows: $E_{05} = 0.85 \times E_{mean}$ and $G_{05} = 0.85 \times G_{mean}$			
Building physics and general values			
Max. deviations in board thickness		± 0.8 mm (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	
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 CPR		KDE_KH_CPR_2016_038	

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/m³, 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.



13
1034
EN 13986



Das Zeichen für verantwortungsvolle Waldwirtschaft

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

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

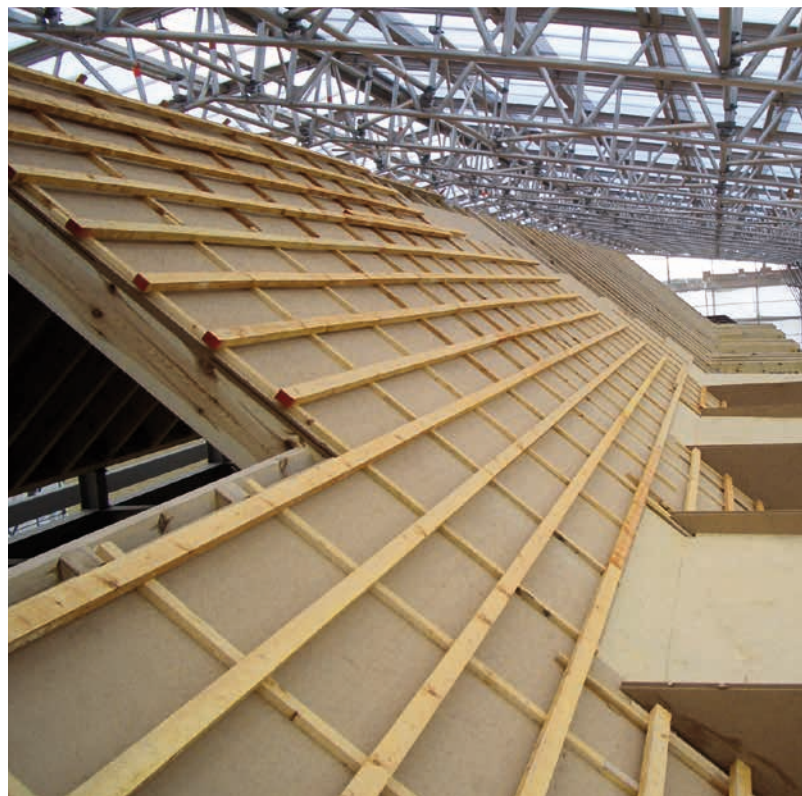
Nominal thickness [mm]	d	15
Strength values [N/mm²]		
Stresses		
Bending	$f_{m,k}$	17
Shear	$f_{v,k}$	0.8
Stiffness values [N/mm²]		
Stresses		
Modulus of elasticity	E_{Mmean}^a	2700
Shear modulus	G_{mean}^a	50
^a The characteristic stiffness values E_{05} and G_{05} are calculated as follows: $E_{05} = 0.9 \times E_{mean}$ and $G_{05} = 0.9 \times G_{mean}$		
Building physics and general values		
Bulk density acc. to EN 323	m	510-550 kg/m ³
Max. deviations in board thickness		± 0.5 mm
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-2012311-EN
Declaration of Performance no. acc. to CPR		KPL_WPDP50_CPR_001
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 $\rho_k = 510\text{kg/m}^3$.

Delivery Programme and Product Overview

Coverage [mm]	Thickness [mm]	Quantity per pallet	Surface area per pallet [m ²]
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 applied, the substrate should be dry and free of dust (follow the manufacturer's instructions).



13
1034
EN 13986



Das Zeichen für verantwortungsvolle Waldwirtschaft

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

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_{Mmean}^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/m ³
Max. deviations in board thickness		± 0.5 mm
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 % formaldehydfreie Bindemittel
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-2012311-DE
Declaration of Performance no. acc. to CPR		KPL_WPDP50_CPR_001
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 $\rho_k = 510\text{kg/m}^3$.

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

Delivery Programme and Product Overview

Coverage [mm]	Thickness [mm]	Pieces per pallet	Surface area per pallet [m ²]
2800 x 1247	15	60	209.5





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.

More information on use is available for downloading at www.swisskrono.de (choose „English“, then „Building Materials“ and click „Downloads“ under „Advertising Materials“).



Built by MAX-HAUS based in Marienwerder, Germany





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
6 - 38mm thick

The all-rounder for interior finishing, ideal for further processing



SWISS KRONO MDF Moulding
6 - 38mm thick

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/m³

- 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



EN 13986
2004



ISO 9001=ISO 14001
ISO 50001



PEFC/04-35-0010



SWISS KRONO MDF
Panel quality
On request

Special MDF for making coated and milled panels



SWISS KRONO HDF
On request

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/m³
- 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



SWISS KRONO Feel-Good Reference Projects

Adding a Storey with SWISS KRONO: New Flats in Only 2 Weeks

Each of ten blocks of flats was to receive an additional storey, with each equipped with underfloor heating, triple-glazed wood-frame windows, tasteful bathrooms and a new hipped roof. The main challenge was a tight two-week deadline for finishing the job.

But SWISS KRONO OSB/3 and SWISS KRONO OSB/F**** saved the day! These products' low weight and excellent suitability for prefabrication and immediate installation of elements greatly reduced the time required to complete the project.



Built by Opitz Holzbau based in Neuruppin, Germany

Before

After



Modernisation with SWISS KRONO for a Constant Feel-Good Climate

While refurbishing their detached home, the owners wanted to achieve fast progress without introducing any moisture.

The project was successfully completed with the eco-friendly SWISS KRONO **MAGNUMBOARD®** OSB timber construction system.





New Timber-Frame Childcare Centre in Bonn

The construction of childcare 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 loadbearing capacity of the individual storeys.



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

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.

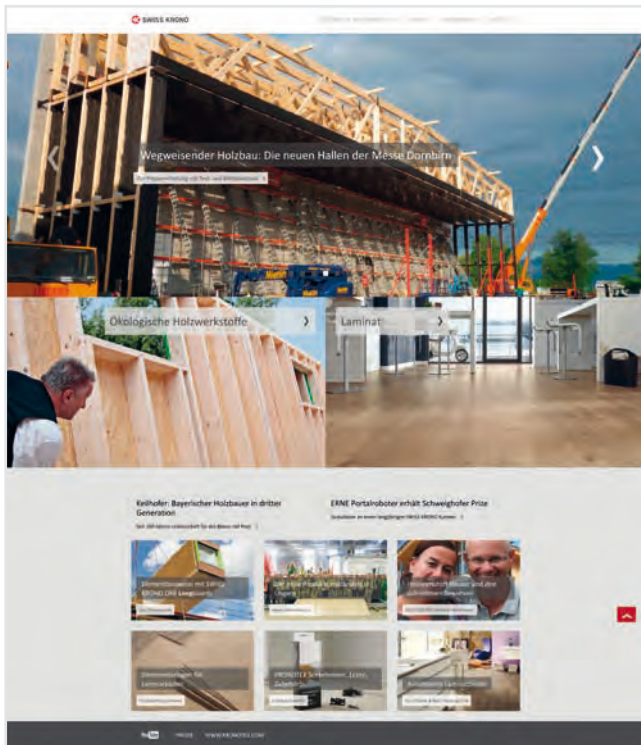




Built by MAX-HAUS
based in
Marienwerder,
Germany



More Service from Us, Greater Success for You



SWISS KRONO on the internet

Our completely redesigned and reorganised SWISS KRONO website now benefits you with even more services and a stronger customer focus. 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!

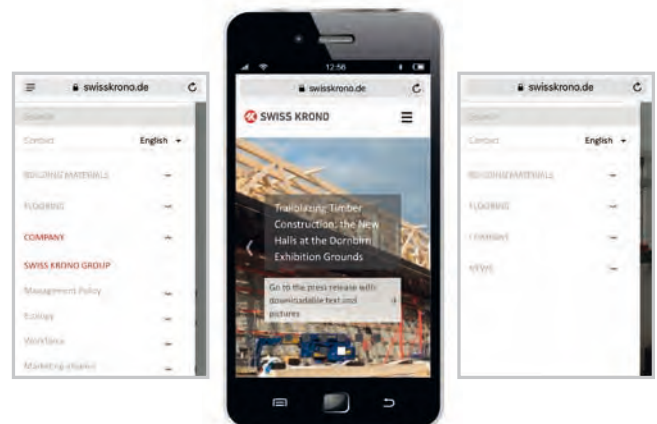
SWISS KRONO Is Mobile

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



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