

# GERMANY

 $\ge$ 

## SWISS KRONO OSB Complete OSB Portfolio



## CONTENTS

#### Seite

- 03 | Innovation and Respect for Nature
- 04 | Delivery Programme
- 06 | SWISS KRONO OSB: High Tech Meets Natural Wood
- 07 | SWISS KRONO OSB: the Original Product for Healthy Living
- 08 | SWISS KRONO OSB: an Optimal Team Player
- 09 | SWISS KRONO OSB: the Sustainable Energy-Storing Product
- 10 | MAGNUMBOARD® OSB: the Modern Timber Construction System
- 11 | Topics, Building Components and Applications

#### SWISS KRONO OSB

- 14 | OSB/3 EN300, square-edged, ContiFinish<sup>®</sup> | Technical Data
- 16 | OSB/3 EN300, T+G, ContiFinish<sup>®</sup> | Technical Data
- 18 | OSB/3 EN300, T+G, Sanded on both sides | Technical Data
- 20 | OSB/4 EN300, square-edged, ContiFinish® | Technical Data
- 22 | OSB/4 EN300, T+G, ContiFinish<sup>®</sup> | Technical Data
- 24 | OSB/3 EN300 kompaktholz, T+G | Technical Data
- 26 | OSB/3 sensitiv EN300, square-edged and T+G, ContiFinish® | Technical Data
- 28 | OSB/3 stop fire EN300, square-edged and T+G, ContiFinish® | Technical Data - The classic construction material with built-in fire protection
- 30 | OSB/4 EN300 MAGNUMBOARD° (MB), sanded | Technical Data
- 32 | OSB anti-termite, square-edged and T+G, ContiFinish<sup>®</sup> | Technical Data
- 34 | OSB/3 QuicklyBoard EN300, square-edged, ContiFinish® | Technical Data
- 36 | General Information on Use
- 38 | Product Overview for SWISS KRONO MDF/HDF
- 40 | SWISS KRONO Feel-Good Reference Projects
- 42 | SWISS KRONO PLANNING TOOL | timberplanner.com
- 43 | More Service from Us, Greater Success for You

Photographs: SWISS KRONO · fotolia · Front cover: Uwe Arens · Marcel Mende · Andrea Kroth · Jan Meier · Andreas Muhs Fotografie Volker Neumann · Werner Huthmacher, Berlin · tm studios · Gordon Welters · Martin Wissen Photography Subject to technical changes. No liability accepted for printing errors, incorrect standards or other mistakes.





## SWISS KRONO OSB: Innovation and Respect for Nature

## SWISS KRONO: Strong with Engineered Wood

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

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

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

## Innovation: Getting Better All the Time

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

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

Staff of the German site of the SWISS KRONO Group did groundbreaking work in the field of eco-friendly construction using SWISS KRONO OSB (oriented strand board). The plant in Heiligengrabe produces up to 18-metre-long **LONG**BOARD OSB boards which are then glued together into solid **MAGNUM**BOARD® OSB elements.

Engineered Wood Products: Innovation & Respect for Nature





## **DELIVERY PROGRAMME**

				Thi	ckness	[mm]				
		9	12	15	18	20	22	25	30	40
	Format [mm]			Qua	antity pe	er pallet				
SWISS KRONO OSB										
SWISS KRONO OSB/3 EN300, square-edged	2500 x 1250	100	78	60	52	46	42	38		24
ContiFinish*	2070 x 2770		36	30	27					
	2650 x 1250			60						
	2800 x 1250			60						
	3000 x 1250			60						
	5000 x 1250		*	30	26		22			
	5000 x 2500			16	14		12	10		
SWISS KRONO OSB/3 EN300, T+G	2500 x 675 T+G on a	all 4 edges	78	60	52		42	38	32	
ContiFinish*	2500 x 1250 T+G on a	all 4 edges		60	52		42	38		
	6250 x 675 T+G on a	all 2 edges					22	18		
SWISS KROND OSR/2 ENIZOD THE	2500 x 475 TLC on a		*	40	52		4.2	20		
Sanded on both sides	2300 x 875 1+0 011 a	an 4 eages	Ŧ	80	52		42	30		
SWISS KRONO OSB/3 kompaktholz, T+G ContiFinish®	2050 x 675 T+G on a	ıll 4 edges	78	60	52		42	38		
SWISS KRONO OSB/3 sensitiv EN300,	2500 x 1250						44			
square-edged, ContiFinish®	3000 x 1250			60	52					
(Sold only via SWISS KRONO Hungary)										
SWISS KRONO OSB/3 sensitiv EN300, T+G ContiFinish®	2500 x 675 T+G on a	all 4 edges		60	54		42			
(Sold only via SWISS KRONO Hungary)										
SWISS KRONO OSB/4 EN300,	2500 x 1250		80	60	52		42		32	
<b>square-edged</b> , ContiFinish®	2650 x 1250		80	60						
	2800 x 1250		80	60						
	3000 x 1250		80	60						
SWISS KRONO OSB/4 EN300, T+G	2500 x 675 T+G on a	ll 4 edges		60	52		42	38	32	
ContiFinish <sup>®</sup>	2500 x 1250 T+G on a	all 4 edges		60	52		42	38		
SWISS KRONO OSB/4 EN300	15000 x 2810							30		
MAGNUMBOARD°, sanded	18000 x 2810							25		
SWISS KRONO LONGBOARD OSB										
SWISS KRONO OSB/3 EN300	6501mm to 18,000mr	n		**	**		**	**		
SWISS KRONO OSB/4 EN300 F****	6501mm to 18,000mr	n		**	**		**	**		

\* On request

\*\* Minimum order: one truckload per thickness and format Special formats and thicknesses available on request



				Th	ickness (n	nm]		
			9	11	12	15	18	2
		Format [mm]		Qua	ntity per p	allet		
	SWISS KRONO OSB							
	SWISS KRONO OSB/3 stop fire EN300	2500 x 1250			60	52	42	:
9	square-edged, ContiFinish®	3000 x 1250				*	42	:
	SWISS KRONO OSB/3 stop fire EN300,	2500 x 675 T+G on all 4 edges				*	42	3
2	<b>T+G,</b> ContiFinish®	2500 x 1250 T+G on all 4 edges				*	42	3
	SWISS KRONO OSB/3 AUS, T+G With green plastic spring on two edges standard, ContiFinish®	Acc. to customer specifications						
	SWISS KRONO OSB/3 AUS,T+G	Acc. to customer specifications						
	With blue plastic spring on two edges anti-termite, ContiFinish®							
	SWISS KRONO OSB JAS F**** ContiFinish®	Acc. to customer specifications						
	<b>SWISS KRONO OSB anti-termite, square-edged</b> ContiFinish®	Acc. to customer specifications						
	SWISS KRONO OSB anti-termite, T+G	Acc. to customer specifications						

#### **SWISS KRONO MDF**

SWISS KRONO MDF - raw	Acc. to customer specifications; thicknesses from 6 to 38mm possible
SWISS KRONO MDF - Moulding	Acc. to customer specifications; thicknesses from 6 to 19mm possible
SWISS KRONO MDF - Panel Quality	Acc. to customer specifications
SWISS KRONO HDF	Acc. to customer specifications



#### Did You Know?

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



## SWISS KRONO OSB: High Tech Meets Natural Wood

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

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

## Multiple Layers for Maximum Strength

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

## Formaldehyde-Free Binders

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

## Conti-Roll<sup>®</sup> 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.

SWISS KRONO's quality management system, backed by regular ISO certification, ensures outstanding products.







Photograph courtesy of Ansbach SUITES in Ansbach, Germany

## SWISS KRONO OSB: the Original Product for Healthy Living

### **OSB Expertise Since 1997**

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

## Always Ahead of the Game

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

SWISS KRONO OSB/3 EN300 and SWISS KRONO OSB/4 EN300 can both be produced as **LONG**BOARD OSB with lengths from 6.501 up to 18 meters.

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

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

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

## Absolutely Food-Safe

All SWISS KRONO OSB products (with the single exception of OSB/3 stop fire) are certified as food-safe. This ensures that SWISS KRONO OSB is absolutely compatible with food prod-ucts. The certificates state, for example, that "the products SWISS KRONO OSB/3 EN3 (...) can be used without reservations for storing and transporting food products that are typically washed or peeled before consumption and may be in direct contact with them." Or put another way: if you can make fruit crates with SWISS KRONO OSB, you can definitely also build houses with it.



Built by Ansbach SUITES



#### Applications

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

Photograph courtesy of Ansbach SUITES in Ansbach, Germany

## SWISS KRONO OSB: an Optimal Team Player

## **Environmental Friendliness**

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

## Roofs

SWISS KRONO OSB/3 EN300 and SWISS KRONO OSB/4 EN300 are ideal for use in roofs. By serving as a water-vapour-impermeable, airtight layer, they permit secure, condensationfree constructions without the need for membranes. Watervapour-perme-able SWISS KRONO DP50 can also be used as under-roof boarding without requiring any additional vapour barriers. SWISS KRONO OSB also complies with standards for flat roof constructions. Compared to ordinary timber boards, it enables faster, easier assembly of large roofs.



## Walls

SWISS KRONO OSB/3 EN300 and SWISS KRONO OSB/4 EN300 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.

## Ceilings

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

## Fire Protection with SWISS KRONO OSB

SWISS KRONO OSB/3 EN300 and SWISS KRONO OSB/4 EN300 products also meet the special requirements for materials used in fire-resistant constructions. For example, in order to meet the requirements for engineered wood boards specified by the DIN 4102-4 standard, SWISS KRONO intentionally produces SWISS KRONO OSB/3 with a density of at least 600kg/m<sup>3</sup>.

Photograph courtesy of Ansbach SUITES in Ansbach, Germany





## SWISS KRONO OSB: the Sustainable Energy-Storing Product

## **Positive Environmental Balances**

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

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

## Guilt-Free Driving with SWISS KRONO

The example calculation below shows how SWISS KRONO products can reduce your personal carbon emissions to offset the CO<sub>2</sub> emitted when you drive your car.

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

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

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



The WIR Quarter in Berlin Weissensee (Deimel Oelschläger Architekten GmbH)



#### **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

Construction of the RhönKinder-Haus childcare centre in Poppenhausen, Germany

## **MAGNUM**BOARD<sup>®</sup> OSB: the Modern Timber Construction System

An eco-friendly solid timber construction system: that's **MAGNUM**BOARD<sup>®</sup> OSB.

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.

Construction of the RhönKinder-Haus childcare centre in Poppenhausen, Germany



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

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

**MAGNUM**BOARD® OSB panels can be directly coated or finished inside, for example with various kinds of plaster (e.g. Knauf Rotkalk 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 EN300

The basis for **MAGNUM**BOARD® OSB modules is SWISS KRONO OSB/4 boards measuring 18 x 2.8m with a thickness of 25mm. SWISS KRONO OSB/4 is therefore an ideal basis for the **MAGNUM**BOARD® OSB building system. Licensees stack and bond between three and ten layers of OSB/4 and then shape them into bespoke wall, ceiling or roof modules. **MAGNUM**BOARD® OSB modules excel with jointless sanded OSB surfaces, high density, quick and easy installation, and a minimal tendency to swell or shrink.



A brochure (no. P01189) full of tips and information on the use of SWISS KRONO **MAGNUM**BOARD® OSB and **LONG**BOARD OSB can be downloaded from our website.



Built by Kita Typ60 Plus, Berlin

#### **Did You Know?**

Due to the formaldehyde-free PMDI binders used to produce them, SWISS KRONO OSB/3 EN300 and SWISS KRONO OSB/4 EN300 are suitable for use in flat roofs while following the guidelines of the German carpentry organisation "Holzbau Deutschland – Bund Deutscher Zimmermeister" and the German Central HVAC Association (ZVSHK).

## 🐼 SWISS KRONO

## **Topics, Building Components and 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 EN300 and SWISS KRONO OSB/4 EN300 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 EN300 and SWISS KRONO OSB/4 EN300 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 EN300 and SWISS KRONO OSB/4 EN300 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.



![](_page_11_Picture_0.jpeg)

The WIR Quarter in Berlin Weissensee | Deimel Oelschläger Architekten GmbH

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

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

\*"Hygrothermal" refers to the movement of heat and moisture through buildings.

![](_page_11_Picture_10.jpeg)

![](_page_11_Picture_11.jpeg)

![](_page_12_Picture_0.jpeg)

#### Childcare centre in Gescher, Germany

## Topics, Building Components and Applications

### Naturally Airtight

SWISS KRONO OSB/3 EN300 and SWISS KRONO OSB/4 EN300 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 Gebäudeenergiegesetz (GEG). The heat-transmitting outer envelope (including joints) must be sealed in accordance with acknowledged technical principles in order to make it lastingly airtight.

### Tried and Tested

SWISS KRONO TEX GmbH & Co. KG is one of Europe's most successful producers of OSB boards bonded without formaldehyde. These high-tech natural-wood products are also ideal for making airtight building envelopes, as has now been officially confirmed. The air permeability of SWISS KRONO OSB has been measured according to DIN EN 13986 and EN 12114 and is included in the current declaration of performance. Using a method analogous to blower door measurement, which simulates the influence of wind on a building, with a differential pressure of 5 Pa, a value of 0.12 m<sup>3</sup>/h per m<sup>2</sup> was determined.

### Practical Example

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

Total area of exterior walls and roof:	413.3m <sup>2</sup>
Total area of all windows:	51.7m²
SWISS KRONO OSB/3 area:	361.6m²

At a pressure differential of 50 pascals, the following amount of air flows through the boards:  $361.6 \times 0.14 = 50.6m^3/h$ . The total contained volume of the house is  $724.50m^3$ . This yields an air exchange rate of n50 = 50.6 / 724.5 = 0.07 [h-1], thanks to SWISS KRONO OSB/3 EN300 and SWISS KRONO OSB/4 EN300.

🐼 SWISS KRONO

In Germany, buildings equipped with a ventilation system may have an n50 air exchange rate of up to 1.5 per hour. And SWISS KRONO OSB/3 EN300 and SWISS KRONO OSB/4 EN300 excel with a mere four percent of this, which may be regarded as negligible. Even in passive houses, which may not have an n50 value exceeding 0.6 per hour, SWISS KRONO OSB/3 EN300 and SWISS KRONO OSB/4 EN300 result at most in 10% of the ceiling.

![](_page_12_Picture_12.jpeg)

![](_page_13_Picture_1.jpeg)

#### 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 CEcertified 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<sup>®</sup> 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.

![](_page_13_Picture_20.jpeg)

![](_page_13_Picture_21.jpeg)

![](_page_14_Picture_1.jpeg)

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

Strand direction			Major axis			Minor axis				
Nominal thickness [mm]	d	6-10	>10-18	>18-25	6-10	>10-18	>18-25			
Strength values [N/mm²] Stresses					1					
Bending	f <sub>m.k</sub>	18.0	16.4	14.8	9.0	8.2	7.4			
Compression	f <sub>c.90.k</sub>		10.0			10.0				
Shear	f <sub>v.k</sub>		1.0			1.0				
Plate loads										
Bending	f <sub>m,k</sub>	9.9	9.4	9.0	7.2	7.0	6.8			
Tensile loads	f <sub>t,k</sub>	9.9	9.4	9.0	7.2	7.0	6.8			
Compression	f <sub>c,k</sub>	15.9	15.4	14.8	12.9	12.7	12.4			
Shear	f <sub>v,k</sub>		6.8			6.8				
Stiffness values [N/mm²] Stresses										
Modulus of elasticity	E <sub>m</sub> ª		4930			1980				
Shear modulus	G <sub>r</sub> ª		50			50				
Plate loads										
Modulus of elasticity	$E_{t/c}^{a}$		3800		3000					
Shear modulus	$G_v^a$		1080			1080				
$^{ m a}$ The characteristic stiffness values E $_{ m 05}$ and G $_{ m 05}$	<sub>5</sub> are calculate	d as follows	s: E <sub>05</sub> = 0.85 x E a	and G <sub>05</sub> = 0.85	x G					
Building physics and general values										
Bulk density acc. to EN 323	m			≥ 600	kg/m³					
Length and width tolerance				± 3	mm					
Squareness acc. to EN 324-2				2m	m/m					
Max. deviations in board thickness			± 0.8mr	m (ContiFinisl	n°)  +0.3mm	n (sanded)				
Tensile strength perp. to plane acc. to EN 319	perm. $\sigma_{_{Zy}}$	0.18	0.15	0.13	0.18	0.15	0.13			
Thermal conductivity acc. to EN 13986	λ			0.13	N/mK					
Water vapour permeability	s <sub>d</sub>			≥ 2.0m (12 to	25mm) - dry	ý				
Thickness swelling acc. to EN 317				≤ 1	5%					
Coefficient of expansion for 1% change in wood	l moisture			0.0	3%					
Air permeability at 50 Pa				0.12 (n	1 <sup>3</sup> /hm²)					
Waste code	EWC			03 0	01 05					
Emissions class			E1 – 100% f	ormaldehyde	-free binders	s (< 0.03ppm)				
Emissions class / DIBt expertise: G-160-18-000	01		Complianc or building st	e with health ructures acc	protection re to MVVTB 2	equirements 017/1, Annex 8				
Environmental product declaration as per ISO	14205 and EN	15804	E	PD-KR0-202	00203-IBD2-	EN				
Utilisation classes acc. to EN V 1995-1-1				1	+ 2					
Reaction to fire performance class acc. to EN 1	3501-1			D - s	2, d0					
Declaration of performance no. acc. to EU con	struction prod	ucts regula	tion SKI	DE_OSB-3_CF	PR_2022_05	7_EN				

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

#### **Delivery Programme and Product Overview**

Format [mm]				т	hickness (mi	m]				
	9	10	12	15	18	20	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 18.000 ( <b>LO</b>	NGBOARD OSB	)		**	**		**	**		

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

![](_page_15_Picture_1.jpeg)

#### Applications

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

#### Did You Know?

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

## SWISS KRONO OSB/3 EN300, T+G

ContiFinish<sup>®</sup>, made with formaldehyde-free binders, CE, PEFC <sup>™</sup>

## 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-andgroove 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 timberframe houses there is no need to additionally seal it with a water-vapour-impermeable membrane.

Built by Ferienhaussiedlung Dagebüll

![](_page_15_Picture_17.jpeg)

![](_page_15_Picture_18.jpeg)

![](_page_16_Picture_1.jpeg)

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

Strand direction			Major axis			Minor axis				
Nominal thickness [mm]	d	6-10	>10-18	>18-25	6-10	>10-18	>18-25			
Strength values [N/mm²] Stresses					1					
Bending	f <sub>m.k</sub>	18.0	16.4	14.8	9.0	8.2	7.4			
Compression	f <sub>c.90.k</sub>		10.0			10.0				
Shear	f <sub>v.k</sub>		1.0			1.0				
Plate loads										
Bending	f <sub>m,k</sub>	9.9	9.4	9.0	7.2	7.0	6.8			
Tensile loads	f <sub>t,k</sub>	9.9	9.4	9.0	7.2	7.0	6.8			
Compression	f <sub>c,k</sub>	15.9	15.4	14.8	12.9	12.7	12.4			
Shear	f <sub>v,k</sub>		6.8			6.8				
Stiffness values [N/mm²] Stresses										
Modulus of elasticity	E <sub>m</sub> ª		4930			1980				
Shear modulus	$G_r^a$		50			50				
Plate loads										
Modulus of elasticity	$E_{t/c}^{a}$		3800	3000						
Shear modulus	$G_v^a$		1080			1080				
$^{\rm a}$ The characteristic stiffness values ${\rm E}_{_{05}}$ and ${\rm G}_{_{05}}$	are calculate	d as follows	s: E <sub>05</sub> = 0.85 x E a	and G <sub>05</sub> = 0.85	x G					
Building physics and general values										
Bulk density acc. to EN 323	m			≥ 600	kg/m³					
Length and width tolerance				± 3	mm					
Squareness acc. to EN 324-2				2m	m/m					
Max. deviations in board thickness			± 0.8mr	m (ContiFinisl	n°)  +0.3mm	n (sanded)				
Tensile strength perp. to plane acc. to EN 319	perm. $\sigma_{_{Zy}}$	0.18	0.15	0.13	0.18	0.15	0.13			
Thermal conductivity acc. to EN 13986	λ			0.13	N/mK					
Water vapour permeability	s <sub>d</sub>			≥ 2.0m (12 to	25mm) - dry	ý				
Thickness swelling acc. to EN 317				≤ 1	5%					
Coefficient of expansion for 1% change in wood	moisture			0.0	3%					
Air permeability at 50 Pa				0.12 (n	n³/hm²)					
Waste code	EWC			03 0	1 05					
Emissions class			E1 – 100% f	ormaldehyde	-free binders	s (< 0.03ppm)				
Emissions class / DIBt expertise: G-160-18-000	)1		Complianc or building st	e with health ructures acc	protection re to MVVTB 2	equirements 017/1, Annex 8				
Environmental product declaration as per ISO 1	14205 and EN	15804	E	PD-KR0-202	00203-IBD2-	EN				
Utilisation classes acc. to EN V 1995-1-1				1	+ 2					
Reaction to fire performance class acc. to EN 1	3501-1			D - s	2, d0					
Declaration of performance no. acc. to EU cons	struction prod	ucts regula	tion SKI	DE_OSB-3_CF	PR_2022_05	7_EN				

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

#### **Delivery Programme and Product Overview**

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

![](_page_17_Picture_1.jpeg)

#### Applications

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

#### **Did You Know?**

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

## SWISS KRONO OSB/3 EN300, T+G

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

## Naturally Strong with Tongue-and-Groove Joints

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

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

## Ideal for Direct Coating

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

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

ССС 04 1034 EN 13986 РЕГССИАЗБОЮ Built by MAX-HAUS, Marienwerder

![](_page_17_Picture_20.jpeg)

![](_page_18_Picture_1.jpeg)

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

Strand direction	Major axis Minor axis									
Nominal thickness [mm]	d	6-10	>10-18	>18-25	6-10	>10-18	>18-25			
Strength values [N/mm²] Stresses										
Bending	f <sub>m,k</sub>	18.0	16.4	14.8	9.0	8.2	7.4			
Compression	f <sub>c.90.k</sub>		10.0			10.0				
Shear	f <sub>v,k</sub>		1.0			1.0				
Plate loads										
Bending	f <sub>m,k</sub>	9.9	9.4	9.0	7.2	7.0	6.8			
Tensile loads	f <sub>t,k</sub>	9.9	9.4	9.0	7.2	7.0	6.8			
Compression	f <sub>c,k</sub>	15.9	15.4	14.8	12.9	12.7	12.4			
Shear	f <sub>v,k</sub>		6.8			6.8				
Stiffness values [N/mm²] Stresses										
Modulus of elasticity	E <sub>m</sub> ª		4930			1980				
Shear modulus	G <sub>r</sub> ª		50			50				
Plate loads										
Modulus of elasticity	E <sub>t/c</sub> ª		3800		3000					
Shear modulus	$G_v^a$		1080			1080				
$^{a}$ The characteristic stiffness values E $_{ m 05}$ and G $_{ m 05}$	; are calculate	d as follows	s: E <sub>05</sub> = 0.85 x E a	and $G_{05} = 0.85$	x G					
Building physics and general values										
Bulk density acc. to EN 323	m			≥ 600	kg/m³					
Length and width tolerance				± 3	mm					
Squareness acc. to EN 324-2				2mr	m/m					
Max. deviations in board thickness			± 0.8mr	n (ContiFinish	ı°)   + 0.3mm	(sanded)				
Tensile strength perp. to plane acc. to EN 319	perm. $\sigma_{_{Zy}}$	0.18	0.15	0.13	0.18	0.15	0.13			
Thermal conductivity acc. to EN 13986	λ			0.13 \	N/mK					
Water vapour permeability	s <sub>d</sub>			≥ 2.0m (12 to	25mm) - dry	ý				
Thickness swelling acc. to EN 317				≤ 1	5%					
Coefficient of expansion for 1% change in wood	l moisture			0.0	3%					
Air permeability at 50 Pa				0.12 (m	<sup>3</sup> /hm²)					
Waste code	EWC			03 0	1 05					
Emissions class			E1 – 100% f	ormaldehyde	-free binder	s (< 0.03ppm)				
Emissions class / DIBt expertise: G-160-18-000	01		Complianc or building st	e with health ructures acc.	protection re to MVVTB 2	equirements 017/1, Annex 8				
Environmental product declaration as per ISO	14205 and EN	15804	E	PD-KR0-2020	)0203-IBD2-	EN				
Utilisation classes acc. to EN V 1995-1-1				1 -	+ 2					
Reaction to fire performance class acc. to EN 1	3501-1			D - s	2, d0					
Declaration of performance no. acc. to EU con	struction prod	ucts regula	tion SKI	DE_OSB-3_CF	PR_2022_05	7_EN				

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

#### **Delivery Programme and Product Overview**

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

\* On request

![](_page_19_Picture_1.jpeg)

#### Applications

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

#### Did You Know?

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

## SWISS KRONO OSB/4 EN300, square-edged

ContiFinish<sup>®</sup>, made with formaldehyde-free binders, CE, PEFC ™

Identification:

- from 10 to < 25mm: SWISS KRONO OSB/4 EN300 F\*\*\*\*
- from 25 to 30mm: SWISS KRONO OSB/4 EN300 MAGNUMBOARD® (MB)

## 100% Reliable and Safe

Our best: SWISS KRONO OSB/4 EN300, ContiFinish®. It's as strong as OSB/4 and absolutely conducive to healthy living, being produced using completely formaldehyde-free adhesives.

SWISS KRONO OSB/4 EN300 is monitored by the testing, inspection and certification body HFB Engineering GmbH in Leipzig, which has confirmed that its technical characteristics exceed those required by the relevant standard. For thicknesses in the range from 10 to <25mm, the values of the well-known SWISS KRONO OSB/F\*\*\*\* also apply to OSB/4 EN300 F\*\*\*\*. In the thickness range between 25 and 30mm, the even better values of the board quality known as **MAGNUM**BOARD® apply. All this ensures maximum quality.

## The Eco-Friendly Engineered Wood Product of the Future

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

![](_page_19_Picture_23.jpeg)

swisskrono.com/de-en

This also means using wood harvested while tending and thinning sustainably managed forests to make our premium product, SWISS KRONO OSB/4 EN300. Its formaldehyde emissions are considerably below the E1 ceiling of 0.1ppm and even quite a bit less than the stricter maximum of 0.03ppm that industry organisations are calling for. As a result, it is even suitable for packaging food. When used for heavy transport or to package sensitive foods, its ContiFinish® face effectively keeps out moisture and damp.

Built by Dr. Finster, Gehrden

![](_page_19_Picture_27.jpeg)

![](_page_20_Picture_1.jpeg)

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

Strand direction of face layer			Major axis		1	Minor axis	s			
Nenndicken der Platten [mm]	d	10 - 18	>18 - <25	25 -30	10 - 18	>18 - <25	25 - 30			
Strength values [N/mm2] Stresses										
Bending	f <sub>m,k</sub>	28.0	23.0	27.5	14.0	12.5	19.0			
Shear	f <sub>v,k</sub>		1.5			1.5				
Plate loads										
Bending	f <sub>m,k</sub>	19.5	17.0	10.9*	13.5	12.5	8.0*			
Tensile loads	f <sub>t,k</sub>	12.0	10.5	11.5	8.0	7.5	11.0			
Compression	f <sub>c,k</sub>	14.0	12.5	14.5	11.0	10.5	14.5			
Shear	f <sub>v,k</sub>	8.0	7.0	7.0	8.0	7.0	7.0			
Stiffness values [N/mm2] Stresses										
Modulus of elasticity	E <sub>m</sub> ª	6	500	7500	30	000	3500			
Shear modulus	<b>G</b> <sub>r</sub> <sup>a</sup>		100	70	100		90			
Plate loads										
Fensile modulus of elasticity	E <sub>t</sub> <sup>a</sup>		3500		25	500	3000			
Bulk modulus of elasticity	E <sub>c</sub> ª		3500			2500				
Shear modulus	G,,ª	1	000	1100	1000		1100			

\* This value is not covered for thicknesses > 25 mm

#### Building physics and general values

Bulk density acc. to EN 323	m	≥ 620kg/m³				
Max. deviations in board thickness **sanded	mm	± 0.4	± 0.8 ± 0.3**	± 0.4	± 0.8 ± 0.3**	
Length and width tolerance			± 3mm			
Thermal conductivity acc. to EN 13986	λ		0.13 W/m	К		
Water vapour permeability	S <sub>d</sub>	≥ 2	.0m (from 12 to 30mm)	) - dry (µ x d)		
Air tightness acc. to EN 12114 at 50 Pa			0.12 (m³/hr	m²)		
Thickness swelling acc. to EN 317		≤ 9%	≤ 8%	≤ 9%	≤ 8%	
Coefficient of expansion for 1% change in wood moisture		0.015%				
Waste code	EWC	03 01 05				
Emissions class		E1 – 100%	6 formaldehyde-free b	inders (< 0.03ppm)		
VOC emissions / DIBt expertise: G-160-18-0001		Compliance with health protection requirements for building structures acc. to MVVTB 2017/1, Annex 8				
Environmental product declaration as per I	SO 14205 and EN 15804	EPD-KR0-20200203-IBD2-EN				
Utilisation classes acc. to EN V 1995-1-1			1 + 2			
Reaction to fire performance class acc. to E	N 13501-1	D - s2, d0				
Declaration of performance no. acc. to EU con	struction products regulat	ion	SKDE_OSB-4_CPR_2	022_058_EN		

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

#### **Delivery Programme and Product Overview**

Format [mm]	Thickness [mm]							
	12	15	18	22	25	30		
2500 x 1250	•	•	•	•		•		
2650 x 1250	•	•						
2800 x 1250	•	•						
3000 x 1250	•	•						
6501 to 18,000 (LONGBOARD OSB)		**	**	**	**			

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

![](_page_21_Picture_1.jpeg)

#### 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.com/de-en.

## SWISS KRONO OSB/4 EN300, T+G

ContiFinish<sup>®</sup>, made with formaldehyde-free binders, CE, PEFC ™

Identification:

- from 10 to < 25mm: SWISS KRONO OSB/4 EN300 F\*\*\*\*
- from 25 to 30mm: SWISS KRONO OSB/4 EN300 MAGNUMBOARD® (MB)

## Quickly Build Roofs for Extreme Loads

Available with tongue-and-groove joints on two or four edges, SWISS KRONO OSB/4 EN300 – T+G, ContiFinish®, 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/4 EN300 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/4 EN300. The excellent resistance to water vapour diffusion measured by independent monitoring institutions confirms that this material can be used to reinforce internal and external walls as well as ceilings or roofs, among other applications.

![](_page_21_Picture_22.jpeg)

![](_page_21_Picture_23.jpeg)

![](_page_22_Picture_1.jpeg)

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

Strand direction of face layer			Major axis		1	Minor axis	
Nenndicken der Platten [mm]	d	10 - 18	>18 - <25	25 -30	10 - 18	>18 - <25	25 - 30
Strength values [N/mm2] Stresses							
Bending	f <sub>m,k</sub>	28.0	23.0	27.5	14.0	12.5	19.0
Shear	f <sub>v,k</sub>		1.5			1.5	
Plate loads							
Bending	f <sub>m,k</sub>	19.5	17.0	10.9*	13.5	12.5	8.0*
Tensile loads	f <sub>t,k</sub>	12.0	10.5	11.5	8.0	7.5	11.0
Compression	f <sub>c,k</sub>	14.0	12.5	14.5	11.0	10.5	14.5
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 <sub>m</sub> ª	6	500	7500	30	00	3500
Shear modulus	G <sub>r</sub> ª	1	00	70	10	00	90
Plate loads							
Tensile modulus of elasticity	E <sub>t</sub> <sup>a</sup>		3500		25	00	3000
Bulk modulus of elasticity	Ecª		3500			2500	
ball modulus of clusticity				4400	1000		1100

#### Building physics and general values

Bulk density acc. to EN 323	m	≥ 620kg/m³				
Max. deviations in board thickness **sanded	mm	± 0.4	± 0.8 ± 0.3**	± 0.4	± 0.8 ± 0.3**	
Length and width tolerance			± 3mm			
Thermal conductivity acc. to EN 13986	λ		0.13 W/m	К		
Water vapour permeability	Sd	≥ 2	2.0m (from 12 to 30mm	) - dry (µ x d)		
Air tightness acc. to EN 12114 at 50 Pa			0.12 (m³/h	m²)		
Thickness swelling acc. to EN 317		≤9%	≤ 8%	≤ 9%	≤ 8%	
Coefficient of expansion for 1% change in wood moisture		0.015%				
Waste code	EWC	03 01 05				
Emissions class		E1 – 100% formaldehyde-free binders (< 0.03ppm)				
VOC emissions / DIBt expertise: G-160-18-	Compliance with health protection requirements for building structures acc. to MVVTB 2017/1, Annex 8					
Environmental product declaration as per	SO 14205 and EN 15804	EPD-KR0-20200203-IBD2-EN				
Utilisation classes acc. to EN V 1995-1-1		1 + 2				
Reaction to fire performance class acc. to	EN 13501-1	D - s2, d0				
Declaration of performance no. acc. to EU co	nstruction products regulat	ion	SKDE_OSB-4_CPR_2	022_058_EN		

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

#### **Delivery Programme and Product Overview**

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

![](_page_23_Picture_1.jpeg)

#### **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 OSB/3 kompaktholz, T+G

ContiFinish<sup>®</sup>, CE, PEFC <sup>™</sup>

## The Application-Friendly Board

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

## Save Space with Thinner Boards

kompaktholz OSB/3 is considerably stronger than particleboard, which permits the use of thinner boards. For example, a kompaktholz board 22mm thick is just as strong as 30mmthick 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.

![](_page_23_Picture_16.jpeg)

![](_page_23_Picture_17.jpeg)

![](_page_24_Picture_1.jpeg)

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

Strand direction		Majo	Major axis		or axis
Nominal thickness [mm]	d	> 10-18	>18-25	> 10-18	>18-25
Strength values [N/mm²] Stresses					
Bending	f <sub>m.k</sub>	16.4	14.8	8.2	7.4
Compression	f <sub>c.90.k</sub>	10	0.0	10	).0
Shear	f <sub>v.k</sub>	1.	.0	1	.0
Plate loads	·				
Bending	f <sub>m,k</sub>	9.4	9.0	7.0	6.8
Tensile loads	f <sub>t,k</sub>	9.4	9.0	7.0	6.8
Compression	f <sub>c,k</sub>	15.4	14.8	12.7	12.4
Shear	f <sub>v,k</sub>	6	.8	6	.8
Stiffness values [N/mm²] Stresses					
Modulus of elasticity	E <sub>m</sub> ª	49	30	19	80
Shear modulus	G <sub>r</sub> ª	50 50		i0	
Plate loads					
Modulus of elasticity	E <sub>t/c</sub> <sup>a</sup>	38	00	30	00
Shear modulus	G <sub>v</sub> <sup>a</sup>	10	80	10	80
$^{\rm a}$ The characteristic stiffness values ${\rm E}_{\rm \scriptscriptstyle 05}$ and	${\sf G}_{_{05}}$ are calculated as follow	vs: E <sub>05</sub> = 0.85 x E ar	nd $G_{05} = 0.85 \times G$		
Building physics and general values					
Bulk density acc. to EN 323	m		600	kg/m³	
Max. deviations in board thickness			± 0.	8mm	
Length and width tolerance			± 3	mm	
Squareness acc. to EN 324-2			2m	m/m	
Thermal conductivity acc. to EN 13986	λ		0.13	W/mK	
Thickness swelling acc. to EN 317			≤ 1	15%	
Waste code	EWC		03 0	01 05	
Emissions class		E1 – 100	% formaldehyd	e-free binders (<	: 0,03 ppm)
VOC emissions / DIBt expertise: G-160-18-0	001	Compliance for building str	with health pro uctures acc. to	tection requirem MVVTB 2017/1, A	ents Annex 8
Environmental product declaration as per IS	50 14205 and EN 15804		EPD-KR0-202	00203-IBD2-EN	
Utilisation classes acc. to EN V 1995-1-1			1	+ 2	
Reaction to fire performance class acc. to El	N 13501-1		D - s	s2, d0	
Declaration of Performance no. acc. to EU c	onstruction products regul	ation	SKDE_KH_CPF	R_2019_047_EN	

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

#### **Delivery Programme and Product Overview**

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

![](_page_25_Picture_0.jpeg)

#### Applications

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

![](_page_25_Picture_11.jpeg)

Kita Gescher

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

ContiFinish®, bonded without formaldehyde, CE

#### SWISS KRONO OSB/3 sensitiv

#### - A good decision

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

#### - For sensitiv areas

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

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

#### Benefits of SWISS KRONO OSB/3 sensitiv

- SWISS KRONO OSB/3 sensitiv is made using only formaldehyde-free bonding resins – in contrast to particleboard, which often contains unhealthy formaldehyde.
- Because of this, SWISS KRONO OSB/3 sensitiv is widely approved for use in flat roof constructions.
- SWISS KRONO OSB/3 sensitiv is made using only freshly cut wood from sustainably managed forests. Particleboard, by contrast, often contains used wood contaminated with heavy metals, preservatives etc.
- SWISS KRONO OSB/3 sensitiv is nearly odourless, being made with wood from Populus tree species.
- SWISS KRONO OSB/3 sensitiv has a greater loadbearing ability than P5 plywood as measured acc. to EN 312, among other products.
- SWISS KRONO OSB/3 sensitiv retains its shape and dimensions when the relative humidity fluctuates, unlike plywood. Its water-repellent ContiFinish® surfaces provide additional protection from moisture.
- Plywood, like most kinds of particleboard, is also bonded with formaldehyde-containing resins.
- SWISS KRONO OSB/3 sensitiv is also less expensive than plywood when all factors are considered, due to its outstanding value for money.

16 0765 EN 13986

![](_page_25_Picture_31.jpeg)

![](_page_25_Picture_32.jpeg)

www.blauer-engel.de/uz76

low emissions wood from sustainable forestry

- no adverse impact on health in the living
- environment

FSC

![](_page_26_Picture_1.jpeg)

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

Strand direction	_		Major axis			Minor axis	
Nominal thickness [mm]	d	6-10	>10-18	>18-25	6-10	>10-18	>18-25
Strength values [N/mm²] Stresses							
Bending	f <sub>m,k</sub>	18.0	16.4	14.8	9.0	8.2	7.4
Compression	f <sub>c,90,k</sub>		10.0			10.0	
Shear	f <sub>v,k</sub>		1.0			1.0	
Plate loads							
Bending	f <sub>m,k</sub>	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 <sub>c,k</sub>	15.9	15.4	14.8	12.9	12.7	12.4
Shear	f <sub>v,k</sub>		6.8			6.8	
Stiffness values [N/mm²] Stresses							
Modulus of elasticity	E_a		4930			1980	
Shear modulus	Gŗª		50			50	
Plate loads							
Modulus of elasticity	E <sub>t/c</sub> <sup>a</sup>		3800			3000	
Shear modulus	G <sub>v</sub> <sup>a</sup>		1080			1080	
Building physics and general values	m		00	> 600	ka/m³		
Length and width tolerance				+ 3	mm		
Squareness acc. to FN 324-2				2mr	m/m		
Max. deviations in board thickness				± 0.8mm (C	ontiFinish*)		
Thermal conductivity acc. to EN 13986	λ			0.13 \	V/mK		
Thickness swelling acc. to EN 317				≤ 1	5%		
Coefficient of expansion for 1% change in wo	od moisture			0.0	3%		
Water vapour permeability	Sd			≥ 2.0m (12 to	25mm) - dr	у	
Waste code	EWC			03 0	1 05		
TVOC emissions acc. to AgBB (28 days)	μg/m³			2	02		
Emissions class			E1 – 100% f	ormaldehyde	-free binder	s (< 0.03ppm)	
Emissions class / DIBt expertise: G-160-18-0	0005		Complianc or building st	e with health ructures acc.	protection ro to MVVTB 2	equirements 017/1, Annex 8	
Type of wood used				Populus	species		
Environmental product declaration as per IS	0 14205 and EN	15804		EPD-KRO-2	20200203-IE	BD2-EN	
Utilisation classes acc. to EN V 1995-1-1				1 -	+ 2		
Reaction to fire performance class acc. to EN	N 13501-1			D - s	2, d0		
Destanting of a set o			No. CKUU				

Declaration of performance no. acc. to EU construction products regulation SKHU\_OSB/3\_SENSITIV\_CPR\_002\_EN

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

#### **Delivery Programme and Product Overview**

	Format [mm]		Thickness [mn	n]	
		15	18	22	25
OSB/3 sensitiv EN300	2500 x 1250			•	
square-edged, ContiFinish®	3000 x 1250	•	•		
<b>T+G,</b> ContiFinish®	2500 x 675 T+G on all 4 edges	•	•	•	

\* (Sold only via SWISS KRONO Hungary).

![](_page_27_Picture_1.jpeg)

#### Safety benefits at a glance

- Charring creates a fire-inhibiting layer
- Treated strands for fire-resistant edges as well
- Resistance to fire class C-s2,d0 as per EN 13501-1 (previously class B1)
- Completely formaldehyde-free binders
- As easy to use as standard OSB
- Water-repellent ContiFinish<sup>®</sup> surfaces
- No smouldering after exposure to fire

![](_page_27_Picture_10.jpeg)

15-minute exposure to flame only chars surfaces.

When exposed to flame, SWISS KRONO OSB/3 stop fire EN300 chars to form a fire-inhibiting layer.

## SWISS KRONO OSB/3 stop fire EN300, square-edged and T+G – The classic construction material with built-in fire protection

ContiFinish<sup>®</sup>, CE, PEFC<sup>™</sup>

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

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

Numerous tests have shown that SWISS KRONO OSB/3 stop fire reliably resists catching fire, even after prolonged exposure; its flame resistance actually increases as a result of external charring. SWISS KRONO thus helps prevent

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

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

Comparison of increases in ambient temperature Minutes

![](_page_27_Figure_23.jpeg)

![](_page_27_Picture_24.jpeg)

![](_page_28_Picture_1.jpeg)

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

Strand direction		Μ	lajor axis	Minor axis		
Nominal thickness [mm]	d	>12-18	>18-22	>12-18	>18-22	
Strength values [N/mm²] Stresses						
Bending	f <sub>m,k</sub>	16.4	14.8	8.2	7.4	
Compression	f <sub>c,90,k</sub>		10.0	1	0.0	
Shear	f <sub>v,k</sub>		1.0	1	1.0	
Plate loads						
Bending	f <sub>m,k</sub>	9.4	9.0	7.0	6.,8	
Tensile loads	f <sub>t,k</sub>	9.4	9.0	7.0	6.8	
Compression	f <sub>c,k</sub>	15.4	14.8	12.7	12.4	
Shear	f <sub>v,k</sub>		6.8	ć	5.8	
Stiffness values [N/mm²] Stresses						
Modulus of elasticity	E <sub>m</sub> ª		4930	19	780	
Shear modulus	G <sub>r</sub> ª		50	Į	50	
Plate loads						
Modulus of elasticity	E <sub>t/c</sub> ª		3800	30	000	
Shear modulus	G <sub>v</sub> ª		1080	1(	080	
$^{\rm a}$ The characteristic stiffness values ${\sf E}_{_{05}}$ an	d G <sub>05</sub> are calculate	ed as follows: E <sub>05</sub> :	= 0.85 x E and $G_{05}$ = 0.85	x G		
Building physics and general values						
Bulk density acc. to EN 323	m		700	kg/m³		
Length and width tolerance			± 3	mm		
Squareness acc. to EN 324-2			2mi	m/m		
Max. deviations in board thickness			± 0.8mm (0	ContiFinish®)		

0.13 W/mK

 $\geq$  2.0m dry ( $\mu$  x d)

≤ 15%

0.03%

E1 – 100% formaldehyde-free binders (< 0.03ppm)

Compliance with health protection requirements for building structures acc. to MVVTB 2017/1, Annex 8

1 + 2 C - s2, d0 - flame retardant

Surface	Crystalline efflorescence possible
Declaration of performance no. acc. to EU construction products regulation	SKDE_OSB-3-SF_CPR_2023_060_EN

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

λ

 $\mathbf{S}_{d}$ 

EWC

#### **Delivery Programme and Product Overview**

Thermal conductivity acc. to EN 13986

Coefficient of expansion for 1% change in wood moisture

VOC emissions / DIBt expertise: G-160-20-0005

Reaction to fire performance class acc. to EN 13501-1

Utilisation classes acc. to EN V 1995-1-1

Thickness swelling acc. to EN 317

Water vapour permeability

Waste code

Emissions class

Format [mm	]		Thickne	ss [mm]	
		12	15	18	22
2500 x 1250	square-edged	•	•	•	*
3000 x 1250	square-edged		*	•	*
2500 x 675	T+G on all 4 edges		*	•	•
2500 x 1250	T+G on all 4 edges		*	•	•

\* On request

![](_page_29_Picture_0.jpeg)

#### Infobox

SWISS KRONO **MAGNUM**BOARD® OSB elements can be very flexibly used in a wide variety of applications for fast, dry construction.

Shared accommodation for senior citizens in the Berlin borough of Spandau

## SWISS KRONO OSB/4 EN300 MAGNUMBOARD® (MB),

sanded ce, pefc ™

## 100% SWISS KRONO OSB/4

The SWISS KRONO **MAGNUM**BOARD® OSB building system consists entirely of several 25mm-thick plies of SWISS KRONO OSB/4 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 formaldehydecontaining binders and extremely resistant to pests. It is made entirely from thinnings harvested from sustainably managed German forests. Only completely formaldehydefree 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 me-tres by 25mm thick with sanded faces.

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

## **Dimensionally Stable and Certified**

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

## Interior Enhancement: Anything Is Possible

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

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

![](_page_29_Picture_14.jpeg)

![](_page_30_Picture_1.jpeg)

Strand direction		Major axis	Minor axis
Nominal thickness [mm]	d	25 -30	25 -30
Strength values [N/mm²] Stresses			
Bending	f <sub>m k</sub>	27.5	19.0
Shear	f	1.5	1.5
Plate loads	T.IX		
Bending	f <sub>m.k</sub>	10.9*	8.0*
Tensile loads	f <sub>tk</sub>	11.5	11.0
Compression	f	14.5	14.5
Shear	f	7.0	7.0
Stiffness values [N/mm²] Stresses			
Modulus of elasticity	E <sub>m</sub> ª	7500	3500
Shear modulus	Gr <sup>a</sup>	70	90
Plate loads			
Tensile modulus of elasticity	E <sub>t</sub> <sup>a</sup>	3500	3000
Bulk modulus of elasticity	Eca	3500	2500
Shear modulus	$G_v^a$	1100	1100
* This value is not covered for thickness > 25m Building physics and general values	<sub>5</sub> are calculated as follow	$e_{05} = 0.7 \times e_{010} = 0.000$	
Bulk density acc. to EN 323	m		620kg/m <sup>3</sup>
Max. deviations in board thickness ** sanded	mm		± 0,8 ± 0,3**
Length and width tolerance			± 3mm
Thermal conductivity acc. to EN 13986	λ		0.13 W/mK
Water vapour permeability	Sd	≥ 2.0m (12	to 30mm) - dry (µ x d)
Air tightness acc. to EN 12114 at Pa		0	,12 (m <sup>3</sup> /hm <sup>2)</sup>
Thickness swelling acc. to EN 317			≤ 8%
Coefficient of expansion für 1% change in wood	d moisture content		0.015%
Waste code	EWC		03 01 05
Emissions class		E1 – 100% formalde	hyde-free binders (< 0.03ppm)
VOC emissions / DIBt expertise: G-160-18-000	)1	Compliance with he for building structure	ealth protection requirements s acc. to MVVTB 2017/1, Annex 8
Environmental product declaration as per ISO	14205 and EN 15804	EPD-KR0	-20200203-IBD2-EN
Utilisation classes acc. to EN V 1995-1-1			1 + 2
Reaction to fire performance class acc. to EN 7	13501-1		D - s2, d0

Declaration of performance no. acc. to EU construction products regulation SKDE\_OSB-4\_CPR\_2022\_058\_EN

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

#### **Delivery Programme and Product Overview**

Format [mm]	Thickness [mm] 25	
15000 x 2800	•	
18000 x 2800	•	

![](_page_30_Picture_8.jpeg)

![](_page_31_Picture_1.jpeg)

#### Applications

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

![](_page_31_Picture_6.jpeg)

## SWISS KRONO OSB anti-termite, square-edged

ContiFinish<sup>®</sup>, CE, PEFC<sup>™</sup>

## Special OSB Which Resists Termite Attack

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

### Lastingly Effective Protection

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

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

## SWISS KRONO OSB anti-termite, T+G

ContiFinish<sup>®</sup>, CE, PEFC<sup>™</sup>

## 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 antitermite 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.

![](_page_31_Picture_21.jpeg)

![](_page_31_Picture_22.jpeg)

![](_page_32_Picture_1.jpeg)

Strand direction			Major axis			Minor axis	
Nominal thickness [mm]	d	6-10	>10-18	>18-25	6-10	>10-18	>18-25
Strength values [N/mm²] Stresses							
Bending	f <sub>m,k</sub>	18.0	16.4	14.8	9.0	8.2	7.4
Compression	f <sub>c,90,k</sub>		10.0			10.0	
Shear	f <sub>v,k</sub>		1.0			1.0	
Plate loads							
Bending	f <sub>m,k</sub>	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 <sub>c,k</sub>	15.9	15.4	14.8	12.9	12.7	12.4
Shear	f <sub>v,k</sub>		6.8			6.8	
Stiffness values [N/mm²] Stresses							
Bending modulus of elasticity	E <sub>mean</sub> ª		4930			1980	
Shear modulus	G <sub>mean</sub> ª		50			50	
Plate loads							
Modulus of elasticity	E <sub>mean</sub> ª		3800			3000	
Shear modulus	G <sub>mean</sub> ª		1080			1080	
$^{\rm a}$ The characteristic stiffness values ${\rm E}_{\rm \scriptscriptstyle 05}$ and	G <sub>05</sub> are calculate	ed as follows	: E <sub>05</sub> = 0.85 x E	mean and $G_{05} = 0$	.85 x E <sub>mean</sub>		
Building physics and general values							
Bulk density acc. to EN 323	m	600kg/m <sup>3</sup>					
Max. deviations in board thickness		± 0.8mm (ContiFinish®)   ± 0.3mm (sanded)					
Thermal conductivity acc. to EN 13986	λ	λ 0.13 W/mK					
Thickness swelling acc. to EN 317		≤ 15%					
Coefficient of expansion for 1% change in wo	ood moisture			0.0	3%		
Waste code	EWC	03 01 05					
Emissions class			E1 – 100%	formaldehyde	-free binders	s (< 0.03ppm)	
Utilisation classes acc. to EN V 1995-1-1				1 +	+ 2		
Reaction to fire performance class acc. to El	N 13501-1			D - s	2, d0		
CE certificate no.				501-12-2	494 - GB		

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

#### **Delivery Programme and Product Overview**

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

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

![](_page_33_Picture_1.jpeg)

#### 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<sup>®</sup>, CE, PEFC <sup>™</sup>

## 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.

![](_page_33_Picture_16.jpeg)

![](_page_33_Picture_17.jpeg)

![](_page_34_Picture_1.jpeg)

Strand direction		Major axis	Minor axis	
Nominal thickness [mm]	d	20	20	
Strength values [N/mm²] Stresses				
Bending	f <sub>m.k</sub>	16.4	8.2	
Compression	f <sub>c,90,k</sub>	10.0	10.0	
Shear	f <sub>v.k</sub>	1.0	1.0	
Plate loads				
Bending	f <sub>m,k</sub>	9.4	7.0	
Tensile loads	f <sub>t,k</sub>	9.4	7.0	
Compression	f <sub>c,k</sub>	15.4	12,7	
Shear	f <sub>v,k</sub>	6.8	6.8	
Stiffness values [N/mm²] Stresses				
Bending modulus of elasticity	E <sub>m</sub> ª	4930	1980	
Shear modulus	Grª	50	50	
Plate loads				
Modulus of elasticity	$E_{t/c}^{a}$	3800	3000	
Shear modulus	G <sub>v</sub> <sup>a</sup>	1080	1080	
$^{\circ}$ The characteristic stiffness values E $_{05}$ and G $_{0}$	<sub>15</sub> are calculated a	as follows: $E_{05} = 0.85 \times E$ and $G_{05} = 0.85$	5 x G	
Building physics and general values				
Bulk density acc. to EN 323	m	600	kg/m³	
Max. deviations in board thickness		± 0.8mm (	ContiFinish®)	
Tensile strength perp. to plane acc. to EN 319	$\sigma_{z_y}$	0.15	0.15	
Thermal conductivity acc. to EN 13986	λ	0.13	W/mK	
Thickness swelling acc. to EN 317		5	15%	
Waste code	EWC	03	01 05	
Emissions class		E1 – 100% formal	dehyde-free binders	
DC emissions / DIBt expertise: G-160-18-0001 C for 1		Compliance with health for building structures ac	Compliance with health protection requirements or building structures acc. to MVVTB 2017/1, Annex 8	
Environmental product declaration as per ISO 14205		EPD-KRO-202	200203-IBD2-EN	
Utilisation classes acc. to EN V 1995-1-1		1	+ 2	
Reaction to fire performance class acc. to EN	13501-1	D -	s2, d0	
Declaration of performance no. acc. to EU cor	struction produc	ts regulation SKDE_KH_CP	R_2019_047_EN	

#### **Delivery Programme and Product Overview**

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

2500 x 1250

![](_page_35_Picture_0.jpeg)

Built by MAX-HAUS based in Marienwerder, Germany

## General Information on Use

![](_page_35_Figure_3.jpeg)

## 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.

![](_page_35_Picture_10.jpeg)

- 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.

![](_page_35_Picture_14.jpeg)

- 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).

![](_page_35_Picture_21.jpeg)

### 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.

![](_page_35_Picture_24.jpeg)

![](_page_36_Picture_0.jpeg)

## 🐼 SWISS KRONO

![](_page_36_Picture_2.jpeg)

## 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.

![](_page_36_Picture_7.jpeg)

### Nailing, Stapling, Screwing and Gluing

- SWISS KRONO OSB can be attached to wooden studs and rafters using screws, nails or staples.
- Subject to the specifications of DIN EN 1995-1-1 (EC 5) and for use in Germany the appendix DIN EN 1995-1-1/NA.
- Additionally bond or glue tongue-and-groove joints.

![](_page_36_Picture_12.jpeg)

## 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 is available in the brochure "SWISS KRONO OSB Installation Manual – Natural Stability" (P00913), which can be downloaded from our website.

![](_page_36_Picture_22.jpeg)

![](_page_36_Picture_23.jpeg)

![](_page_36_Picture_24.jpeg)

![](_page_37_Picture_0.jpeg)

## 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-en** 

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

![](_page_37_Picture_5.jpeg)

![](_page_38_Picture_0.jpeg)

![](_page_38_Picture_1.jpeg)

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

![](_page_39_Picture_1.jpeg)

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

## Investment properties built with **MAGNUM**BOARD<sup>®</sup> OSB

Two attractive blocks of rental flats were built in Gehrden near Hannover, Germany as investments.

The **MAGNUM**BOARD® OSB solid timber construction system impressed the investor with its eco-friendliness and especially with how it enables very rapid building.

Additional time was saved by directly applying gypsum plasterboard to the **MAGNUM**BOARD® OSB surfaces without the need for an intervening layer of another material. This reduced both work and costs.

## SWISS KRONO Reference Projects

## SWISS KRONO: Large-Format Modular Building

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

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

MMD, Poppenhausen

![](_page_39_Picture_12.jpeg)

![](_page_39_Picture_13.jpeg)

![](_page_40_Picture_0.jpeg)

![](_page_40_Picture_1.jpeg)

MOKIB – Modular Daycare Centres, Berlin

## Modular childcare centres for Berlin

It was very important to the investor to use only materials which are healthy and eco-friendly in terms of production, transport, use, functionality and ultimate disposal and have a long useful life. All of them were tested and approved by a building biology institute. He also insisted on an approach that would ensure clean, healthy indoor air.

SWISS KRONO OSB/3 sensitiv was therefore chosen for this project. This OSB board is made using Populus tree thinnings and formaldehyde-free glue and therefore characterised by extremely low emissions.

Ansbach SUITES

![](_page_40_Picture_7.jpeg)

## The Ansbach SUITES: Stylish individually owned flats

Timber-frame construction of 31 individually owned flats and a medical practice was accomplished with SWISS KRONO OSB/4 EN300. Made with formaldehyde-free binders, this OSB board is mainly used for eco-friendly timber-frame construction. Its outstanding quality and sustainability are backed up by an environmental product declaration (EPD), a PEFC seal. Excellent technical properties make SWISS KRONO OSB/4 EN300 a versatile product for meeting demanding expectations in terms of structural strength and healthy living.

![](_page_40_Picture_10.jpeg)

![](_page_41_Picture_0.jpeg)

![](_page_41_Picture_2.jpeg)

## timberplanner.com

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

## Filter From over 300 Different Components

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

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

### Narrow Your Search with Sliders

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

## Detailed Information on Every Component

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

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

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

### **Integrated Calculation Tools**

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

### Easy Exportation

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

![](_page_42_Picture_0.jpeg)

## More Service from Us, Greater Success for You

![](_page_42_Picture_2.jpeg)

## Service 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.

#### Ring: +49 (0) 800 5 76 66 96

## SWISS KRONO on the internet

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

.

.

н.

.

References

Contacts

Delivery programme

... and much, much more!

**Bidding documents** 

U-value calculator

- Information materials
- Data sheets
- Certificates
- Construction details
- Application examples
- Condensation calculator
- Trade fairs and other events
- Environment and sustainability

## SWISS KRONO Is Mobile

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

![](_page_42_Picture_18.jpeg)

![](_page_43_Picture_0.jpeg)

SWISS KRONO TEX GmbH & Co. KG Wittstocker Chaussee 1 D-16909 Heiligengrabe Germany

T +49 33 962 69 - 740 F +49 33 962 69 - 376 dehe.sales.osb@swisskrono.com dehe.technicalservice.osb@swisskrono.com www.swisskrono.com/de-en