



TECHNICAL CATALOGUE

Important information on GCC terrace boards



NOVO-TECH











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Valid as of: February 2021

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GCC Terrace System

GCC Terrace system					
Profil	Article name	EAN Code	Colour	Length	HxWmm
	Combiboard 19 x 130 mm	4048533035416	terra	300 cm	19 x 130
	Combiboard 19 x 130 mm	4048533035430	graphit	300 cm	19 x 130
	Combiboard 19 x 130 mm	4048533035850	terra	400 cm	19 x 130
	Combiboard 19 x 130 mm	4048533035874	graphit	400 cm	19 x 130
	Combiboard 16 x 163 mm	4048533035690	terra	300 cm	16 x 163
	Combiboard 16 x 163 mm	4048533035720	graphit	300 cm	16 x 163
	Combiboard 16 x 163 mm	4048533035706	terra	400 cm	16 x 163
	Combiboard 16 x 163 mm	4048533035737	graphit	400 cm	16 x 163
	Terrace board 25 x 138 mm	4048533036529	umbra	300 cm	25 x 138
	Terrace board 25 x 138 mm	4048533036598	titan	300 cm	25 x 138
	Terrace board 25 x 138 mm	4048533036581	umbra	400 cm	25 x 138
	Terrace board 25 x 138 mm	4048533036550	titan	400 cm	25 x 138
	Terrace board 16 x 193 mm	4048533035751	brown	300 cm	16 x 193
	Terrace board 16 x 193 mm	4048533035782	grey	300 cm	16 x 193
	Terrace board 16 x 193 mm	4048533035768	brown	400 cm	16 x 193
	Terrace board 16 x 193 mm	4048533035799	grey	400 cm	16 x 193
	Combiboard 16 x 193 mm	4048533035454	terra	300 cm	16 x 193
	Combiboard 16 x 193 mm	4048533035478	graphit	300 cm	16 x 193
	Combiboard 16 x 193 mm	4048533035898	terra	400 cm	16 x 193
	Combiboard 16 x 193 mm	4048533035904	graphit	400 cm	16 x 193
	Combiboard 16 x 193 mm	4048533036215	terra	500 cm	16 x 193
	Combiboard 16 x 193 mm	4048533036546	graphit	500 cm	16 x 193
	Terrace board 19 x 145 mm	4048533575646	fokus grey	300 cm	19 x 145
	Terrace board 19 x 145 mm	4048533575622	fokus brown	300 cm	19 x 145
	Terrace board 19 x 145 mm	4048533575653	fokus grey	400 cm	19 x 145
	Terrace board 19 x 145 mm	4048533575639	fokus brown	400 cm	19 x 145
	Terrace board 19 x 245 mm	4048533583122	ecru	300 cm	19 x 245
	Terrace board 19 x 245 mm	4048533583146	jade	300 cm	19 x 245
	Terrace board 19 x 245 mm	4048533583160	platin	300 cm	19 x 245
	Terrace board 19 x 245 mm	4048533583139	ecru	400 cm	19 x 245
	Terrace board 19 x 245 mm	4048533583153	jade	400 cm	19 x 245
	Terrace board 19 x 245 mm	4048533583177	platin	400 cm	19 x 245
	Construction beam massiv, 40 x 40 mm	4048533035485	anthracite	300 cm	40 x 40

GCC Cleaning					
Profil	Article name	EAN Code	Colour	Length	HxWmm
	Scouring powder 2 Kg bag	4048533044234		35 cm	85 x 138
	Scrubbing brush	4048533597013		20 cm	45 x 50
	Shaft, incl. holder and 2 wing screws	4048533597020		163 cm	Ø 32

LIST OF ARTICLES

GCC Terrace System














GCC Terrace system accessories				
	Article name	EAN Code	Colour	L x W x H mm
	ConStep mounting plate for construction beam 40 x 40 mm	4048533021402	black	245 x 136 x 79
	ConStep single mount for construction beam 40 x 40 mm	4048533021419	black	96 x 60 x 55
	ConStep double mount for construction beam 40 x 40 mm	4048533021440	black	214 x 60 x 55
	Mounting shoe incl. screw M6 x 16 mm, washer, nut, 10 units, wood screw 4 x 30 mm, adapter	4048533021495	V2A	78 x 40 x 22
	Locking clamp, black one-piece, 50 units/pack	4048533021617	V2A	66 x 24 x 27
	Edge locking clamp, black 2-pce., 25 units/pack	4048533021624	V2A	66 x 18 x 27
	Clip black incl. screws, 50 units/pack	4048533021563	V2A	35 x 24 x 7,7
	Clip black incl. screws, 250 units/pack	4048533021846	V2A	35 x 24 x 7,7
	Clip black incl. screws, 500 units/pack	4048533021853	V2A	35 x 24 x 7,7
	Edge clip, black, incl. screws 25 units/pack	4048533021570	V2A	35 x 24 x 7,7
	Distanz Fix, 10 units Spacers for heading joints	4048533578333	black	162 x 54 x 20
	Arretier Fix for a height locking of the butt joints	4048533578340	black	70 x 25 x 5
	Screw M8 x 80 mm + washer + nut 10 units/pack	4048533021471	V2A	M8 x 80
	Screw M8 x 40, 10 units/pack	4048533576377	V2A	M8 x 40
	Screw M6 x 40, 10 units/pack	4048533575561	V2A	M6 x 40
	Slot bridge, 20 units/pack for construction beam 40 x 40 mm	4048533021464	V2A	55 x 10 x 8

GCC Construction wood accessories				
Profil	Article name	EAN Code	Colour	L x W x H mm
	Clamp for construction wood Rhombus 30 units/pack	4048533596702	V2A	83.6 x 40 x 15
	Clamp for construction wood Rhombus 30 units/pack	4048533596719	V2A blackened	83.6 x 40 x 15

LIST OF ARTICLES

GCC Terrace system / LED-lighting system

GCC Terrace system accessories				
	Article name	EAN Code	Colour	L x W x H mm
	Connector for construction beam 40 x 40 mm	4048533021433	grey	2.050 x 60 x 28
	Spiked band 10 m (on a roll)	4048533021501	black	10.000 x 14 x 2
	Safety tape, self-adhesive 10 m (on a roll)	4048533021532	black	10.000 x 10 x 1,2
	Rubber pad 3 mm Rubber pad 10 mm Rubber pad 20 mm	4048533021600 4048533021594 4048533021587	black black black	100 x 60 x 3 100 x 60 x 10 100 x 60 x 20
	Lower edge fixing screws 92 mm, TX 30, for lower edge 40 x 40 mm	4048533021655	galvanized	92 x 7,5
	ConStep rubber pad 3 mm ConStep rubber pad 5 mm ConStep rubber pad 10 mm	4048533021686 4048533021679 4048533021662	black black black	300 x 300 x 3 300 x 300 x 10 300 x 300 x 20

GCC LED lighting system				
	Article name	EAN Code	Colour	L x W x H mm
	Remote control set 24V IP 67, incl. remote control, transmission capacity max. 72 W	4048533596207		200 x 79 x 55 184 x 28 x 21,5
	Power supply electronic ballast 24 V IP 67, 40 W	4048533596214		270 x 30 x 17
	LED-Spot Mini 34 mm, IP 67 24 V DC (0.25 W/9 LED / 40 lm/W = 10 lm per Spot)	4048533596238	neutral white	Ø 34
	LED-Spot Maxi, IP 67 24 V DC (0.5 W/18 LED / 56 lm/W = 28 lm per Spot)	4048533596221	neutral white	Ø 60
	Distributor 2-fold, IP 68 Distributor 4-fold, IP 68	4048533596252 4048533596245	black / blue black / blue	75 x 17,5 x 40 145 x 17,5 x 40
	Extension cables IP 68, 1,000 mm Extension cables IP 68, 3,000 mm Extension cables IP 68, 6,000 mm	4048533596269 4048533596276 4048533596283	black / blue black / blue black / blue	1.000 mm 3.000 mm 6.000 mm



The spots contain built-in LED lamps of energy efficiency classes A ++ to A.
The LEDs can not be changed in the spotlight.

LIST OF ARTICLES

GCC Fence system








GCC Fence system					
Profil	Article name	EAN Code	Colour	Length	HxWmm
	BLICKFANG panel, 1,602 mm	4048533575004	ecru	160.2 cm	35 x 270
	BLICKFANG panel, 1,602 mm	4048533575011	platin	160.2 cm	35 x 270
	BLICKFANG panel, 1,602 mm	4048533575028	jade	160.2 cm	35 x 270
	BLICKFANG panel, 1,805 mm	4048533594432	ecru	180.5 cm	35 x 270
	BLICKFANG panel, 1,805 mm	4048533594449	platin	180.5 cm	35 x 270
	BLICKFANG panel, 1,805 mm	4048533594456	jade	180.5 cm	35 x 270
	BLICKFANG panel, 2,100 mm	4048533575035	ecru	210 cm	35 x 270
	BLICKFANG panel, 2,100 mm	4048533575042	platin	210 cm	35 x 270
	BLICKFANG panel, 2,100 mm	4048533575059	jade	210 cm	35 x 270
	BLICKFANG posts oval, 60 x 90 mm	4048533576001	terra	220 cm	60 x 90
	BLICKFANG posts oval, 60 x 90 mm	4048533576032	graphit	220 cm	60 x 90
	BLICKFANG posts oval, 60 x 90 mm	4048533576018	terra	270 cm	60 x 90
	BLICKFANG posts oval, 60 x 90 mm	4048533576049	graphit	270 cm	60 x 90
	BLICKFANG bar, 40 x 112 mm	4048533576438	terra	178,6 cm	40 x 112
	BLICKFANG bar, 40 x 112 mm	4048533576469	graphit	178,6 cm	40 x 112





GCC Fencing system accessories				
	Article name	EAN Code	Colour	L x W x H mm
	BLICKFANG panel holder 16 units	4048533575110	stainless steel	245 x 136 x 79
	BLICKFANG bar connectors 4 units incl. 16 screws M6 x 30 mm	4048533575103	black	96 x 60 x 55
	BLICKFANG base plate incl. 4 screws M8 x 80 mm	4048533575127	stainless steel	120 x 120 x 55
	BLICKFANG stainless steel bar 42 x 60 mm	4048533594302	stainless steel	1,773 x 42 x 60
	Insert bar for stainless steel bar 19 x 23 mm	4048533594326	grey	1,770 x 19 x 23
	BLICKFANG accessories set for stainless steel bar incl. post fastening [4 rotary flange + accessories]	4048533594319	stainless steel	95 x 45 x 50

GCC Fencing system with stainless steel bar				
	Article name	EAN Code	Colour	L x W x H mm
	BLICKFANG fence set with stainless steel bar Comprising of: 7 Panels 1,805 mm 2 stainless steel bars incl. post fastening 1,773 mm 1 insert bar for stainless steel bar 1,770 mm 1 accessories set for stainless steel bar	4048533594364 4048533594371 4048533594388	ecru platin jade	1,789 x 40 x 1,854 1,789 x 40 x 1,854 1,789 x 40 x 1,854

LIST OF ARTICLES

GCC Construction wood

GCC Construction wood					
Profil	Article name	EAN Code	Colour	Length	HxWmm
	Construction wood Rhombus, massiv	4048533596603	fokus grey	420 cm	20.5 x 81
	Construction wood Rhombus, massiv	4048533596689	fokus brown	420 cm	20.5 x 81
	Construction wood Rhombus, massiv	4048533596610	fokus chocolate black	420 cm	20.5 x 81
	Construction wood Rhombus, massiv	4048533596665	ecru	420 cm	20.5 x 81
	Construction wood Rhombus, massiv	4048533596672	jade	420 cm	20.5 x 81
	Construction wood Rhombus, massiv	4048533596696	platin	420 cm	20.5 x 81
	Construction wood Rhombus, massiv	4048533596641	umbra	420 cm	20.5 x 81
	Construction wood oval, 60 x 90 mm	4048533576025	terra	360 cm	60 x 90
	Construction wood oval, 60 x 90 mm	4048533576056	graphit	360 cm	60 x 90
	Construction wood, 40 x 112 mm	4048533576445	terra	360 cm	40 x 112
	Construction wood, 40 x 112 mm	4048533576476	graphit	360 cm	40 x 112
	Construction wood, 40 x 112 mm	4048533576674	ecru	360 cm	40 x 112
	Construction wood, 40 x 112 mm	4048533576698	jade	360 cm	40 x 112
	Construction wood, 40 x 112 mm	4048533576681	platin	360 cm	40 x 112
	Construction wood, 40 x 112 mm	4048533576414	umbra	360 cm	40 x 112
	Construction wood, 40 x 112 mm	4048533576407	titan	360 cm	40 x 112
	Construction wood, 40 x 112 mm	4048533576650	brown	360 cm	40 x 112
Construction wood, 40 x 112 mm	4048533576667	grey	360 cm	40 x 112	
	Door no filling. incl. fittings 1,020 x 1,850 mm, Mortice lock with pre-aligned profile cylinder, Individual design. on request	4048533578005	terra		1,850 x 1,020
		4048533578012	graphit		1,850 x 1,020
	Frame Comprising of: 2 units const. planks 40 x 112 mm a 2.700 mm 1 units const. planks 40 x 112 mm a 1.172 mm	4048533578029	terra		1,120 x 2,000
		4048533578036	graphit		1,120 x 2,000

GCC assembly BLICKFANG					
Profil	Article name	EAN Code	Colour	Length	HxWmm
	Standard section assembly Consists of: Assembly of the bar connectors Drilling of the holes for the panel holders	4048533578043			Individual design. on request
	Adapted section assembly Consists of: Reduction in the width / height of the elements and assembly of the bar connectors Drilling of the holes for the panel holders	4048533578050			Individual design. on request
	Diagonal section assembly Consists of: Diagonal sections and assembly of the bar connectors Drilling of the holes for the panel holders	4048533578067			Individual design. on request
	Door assembly Consists of: Assembly of the filling. Door elements are only supplied including infill. Please order the infill separatly.	4048533578111			Individual design. on request

GCC terrace boards

Material description

German Compact Composite (GCC) is a polymer-bound wooden material and comprises to 75 % natural fibres, high quality polymers, suitable additives and dyes.

Characteristic properties and advantages

- high resistance to external environmental influences
- can be processed as easily as normal wood
- laying with a clamp system
- high surface hardness, anti-slip
- wood entirely from sustainable forestry
- imbued and ready-to-use surface
- resistant to mould infestation in accordance with IHD-Standard 20-25 (2006)

Technical data			
Property		Unit	GCC ₁
Thickness		g/cm ³	>1,3
Breaking force*		N	≥3.200
Swelling after coldwater storage (28 days)	Mass	Weight %	≤3,0
	Length	%	≤0,3
	Width	%	≤0,5
	Thickness	%	≤2,5
Slip resistance	Slip class		at least R 10
Behaviour during the freeze-thaw test	Breaking force	Δ %	≤20
Thermal expansion coefficient		10 ⁻⁶ / K	20

The values were calculated using test specimens and can fluctuate for production reasons. They are therefore to be seen as being guideline values.

*) The value is valid for each of the boards with a support clearance (centre support) of 40 cm, except for the bottom plate, as a pad spacing (middle edition) of 50 cm!

.:) Minimum requirement for GCC decking. Individual data sheets per plank can be requested separately.

Production-related dimensional tolerances for GCC terrace boards		
	Stipulation	Tolerance range
Length	300 cm, 400 cm, 500 cm	-0.0 / + 10.0 mm
Width	130 mm, 145 mm, 163 mm, 193 mm, 245 mm	-2.0 / + 1.0 mm
Thickness	16 mm, 19 mm	-1.0 / + 1.0 mm

QUALITY STANDARDS

GCC terrace boards

1. Mechanical properties of the GCC terrace boards

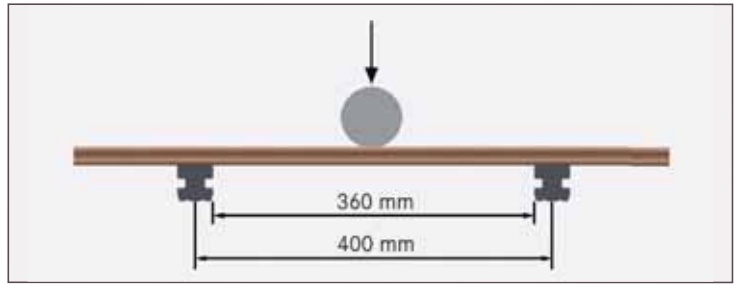
Three point bending:

Clear span of the support: 360 mm

Testing speed: 20 mm/min

Breaking force: min. 3.200 N*

* 3.200 N corresponds to ≈ 320 kg/board with a 40 cm support clearance (centre support) of the subconstruction beam.



2. Mechanical properties of the GCC decking board 19 x 245mm

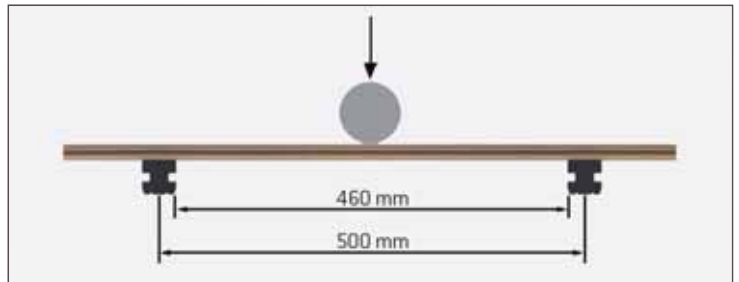
Three point bending:

Clear span of the support: 460 mm

Testing speed: 20 mm/min

Breaking force: min. 3.200 N*

* 3.200 N corresponds to ≈ 320 kg/board with a 50 cm support clearance (centre support) of the subconstruction beam.



3. Permissible dimensional changes after water absorption

Permissible dimensional changes after water absorption* GCC terrace boards

Dimension	Measuring Point	Permissible Dimensional Changes Warranted Values	Remarks	
Length	Maximum value	Board length 300 cm	≤ 9.0 mm	Observe clearances from fixed components
		Board length 400 cm	≤ 12.0 mm	
		Board length 500 cm	≤ 15.0 mm	
			$\leq (3 \text{ mm/m})$	
Width (max. 245 mm)	Centre board		max. ≤ 1.2 mm	
Thickness (max. 19 mm)	Centre board		≤ 0.5 mm	

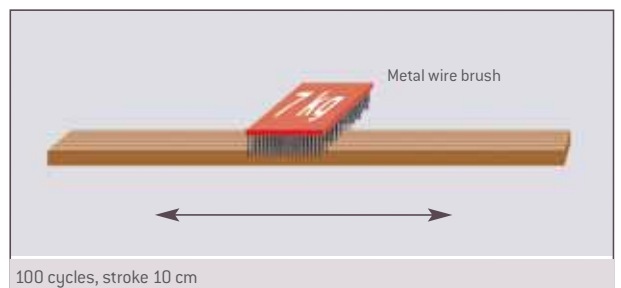
* with outdoor weather exposure and construction with adherence to the construction instructions

GCC Terrace boards and Bangkirai

Comparative abrasion test



Abrasion test conditions



The high dosing accuracy results in a very good product homogeneity. Our products are not manufactured using an intermittent process, but in a continuous one. The mix is pressed through the the shaping tool under high pressure after passing through a discharge extruder. After production, rotating steel brushes are used to remove the polymer surface, the result being an optically haptic wood surface. The material wood makes its mark on our innovative product with its natural characteristics. The visible colour fluctuations can be the result of the the lignin.

At the start of its life, the product has a bright and glossy colour. It should be taken into account that it is a natural product that is subject to a colour maturation as a result of being subjected to weathering. The processed chipboard darkens during the first weeks, from a slight yellow shimmer to a rich and fine colour. It is important that the board is laid in the brushing direction (laying arrow), as the surface effect (lawnmower effect) could otherwise differ due to the fibre orientation.



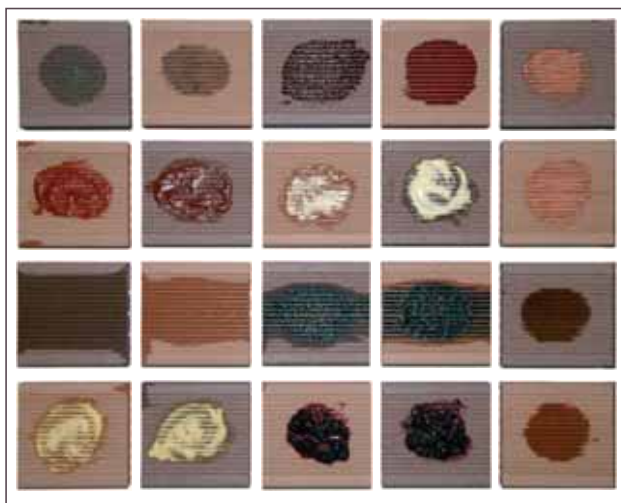
* Exemplary illustrations of natural color maturation

The natural colour maturation is tested in the accelerated weathering tester. Hereby, the solar radiation and humidity are simulated in periodic changes, 1000 hours of weathering correspond to around one year of outdoor weathering.



The quality of our products is inspected on a daily basis. The product is only shipped after the quality inspection has been completed.

How can stains be removed?



Extensive tests in our laboratory have produced the following results:

We have subjected our terrace boards to the best known soiling. The results have shown us that normal soiling can be removed best with clear water, conventional cleaning appliances and some patience. After cleaning with tap water and a couple of days of being subjected to light, the majority of the stains were no longer visible. Fine dust stains (such as soot and metallic dust) are to be avoided under all circumstances. This can cause permanent optical impairments.



Natural fibre encasement (Bast)

GCC consists of up to 75 % natural fibres. They are specially treated, dried and supplied to production in a closed system. Due to the raw material, other natural fibres, such as bast (transitional layer between bark and wood) could become encased. These particles could reach the surface following weathering.

Only 0.03 % of the surface should be affected by this. The particle size must not exceed 0.5 cm². These particles will mostly disappear in time through use (abrasion) of the terrace. They can also be removed mechanically.

This does not damage the product. In accordance with EPLF (European Laminate Floor Association), the particles that are visible at head height when light is shining on them vertically are used for evaluation purposes.



Water marks

Water marks could form on partially covered terraces at the transitional roofed/uncovered area. Rainwater is washed over the surface to the roof and later dry dust particles are briefly moistened, then dry and remain on the surface. This effect does not have an effect on the quality of the boards and is not a ground for complaint. The water marks can normally be removed using tap water and conventional cleaning appliances.

This effect weakens with time, but it cannot be completely prevented.



Scouring powder



















for powerful cleaning of heavily soiled GCC Terrace decks. It is free of surfactants and other chemicals and there is no danger to ground water.

- ❖ 2 kg scouring powder are sufficient for an area of approx. 20 sqm.
- ❖ Do not treat sensitive surfaces or mask them beforehand.
- ❖ Do not use on co-extruded terrace decks!

The safety data sheet and the list of ingredients can be found at: <https://www.novo-tech.de/service>



011499 0001

	Begin washed	7 days	14 days
Blackberries			
Coffee			
Mustard			
Ketchup			
Cream dressing			
Red wine			
Copper paste			
Soot, oil			

1. Test of the resistance to mould

1.1 Test information

Test principle:

Shaped test specimens were subjected to mould formation by them being vaccinated with a defined mixture of spores. As the test specimen is intended for outdoor use, some of the test specimens were subjected to a washing out prior to the biological test being conducted. In order to simulate a nutrient intake by soiling in the practice, testing was carried out under intensified conditions, i.e. with addition of a nutrient solution.

The test batches were incubated for a period of four weeks in conditions that support the growing and germination of mould. The evaluation of the mould growth as a test criteria was carried out after 7, 14 and 28 days on the basis of a specified classification.

Test variants:

- Standard test without nutrient solution and without aging
- Standard test without nutrient solution and after subjection to washing out
- Intensified test with nutrient solution and without aging
- Intensified test with nutrient solution and after subjection to washing out

Underlying test procedure:

The test was on the basis of IHD Standard 20-25 [2006]: "Test of the Resistance of Construction and Wood Materials to Mould", based on EN 60068-2-10:2005 "Environmental Influences - Parts 2-10: Test procedures – Test J and Guideline: Mould Growth" [IEC 60068-2-10:2005].

Tested mould:

Aspergillus niger, Paecilomyces variotii, Penicillium funiculosum, Trichoderma viride, Chaetomium globosum

Cultivation conditions:

28-days incubation in an incubator at 29°C and 95% rel. air humidity

Sterilisation procedure:

Pressure cooker [100°C, 2 x]

Aging prior to test:

Saturation without a vacuum for 7 days with 6 times water exchange [based on DIN EN 84]

Test specimen dimensions:

Test material: 50 x 20 x 5 mm³

Reference material: 50 x 25 x 15 mm³ (pine splint), 60 x 60 x 20 mm³ (MDF)

Date of test specimen installation/removal:

26 January 2006 / 23 February 2006

1.2 Results

Table 3: Test **without prior subsection to washing out**:

Vegetation on top surface of specimen after 28 days (average values from 6 individual values)

No.	Material	Average Rating Number			
		External infection		Self-inspection	
		Standard test	Intensified test	Standard test	Intensified test
1)	WPC H40-05, grey	1	1	1	1
2)	WPC H41-05, brown	1	1	1	1
3)	Bangkirai	1	3	1	3

Table 4: Test **after prior subsection to washing out**:

Vegetation on top surface of specimen after 28 days (average values from 6 individual values)

No.	Material	Average Rating Number			
		External infection		Self-inspection	
		Standard test	Intensified test	Standard test	Intensified test
1)	WPC H40-05, grey	1	1	1	1
2)	WPC H41-05, brown	1	1	1	1
3)	Bangkirai	1	3	1	3

Evaluation scheme:

0 No mould growth on the test specimen surface when observed under a reflected light microscope and a 50-fold enlargement.

1 Mould growth not or barely detectable with the naked eye but clearly detectable with a 50-fold enlargement.

2 Mould growth clearly detectable with the naked eye and considerably weaker than on the comparison test specimens.

3 Mould growth clearly detectable with the naked eye and equal to or stronger than on the comparison test specimens.

Table 5: Wood humidity after test without prior **washing out**

(Average values from 6 individual values)

No.	Material	Average Rating Number			
		External infection		Self-inspection	
		Standard test	Intensified test with nutrient solution	Standard test	Intensified test with nutrient solution
1)	WPC H40-05, grey	13.7	13.3	12.0	13.1
2)	WPC H41-05, brown	12.0	11.7	11.4	12.1
3)	Bangkirai	21.6	21.3	19.3	20.2
4)	Ref. pine splint	26.9	27.4	26.8	27.0
5)	Ref. light MDF	26.4	26.2	29.2	25.1

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1.4 Photos

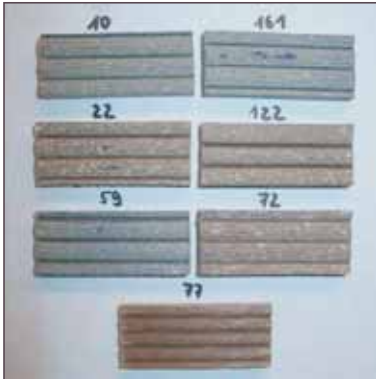


Fig. 3: Selected test specimens after the mould test: no vegetation macroscopically detectable.



Fig. 4: Reference test specimen after mould test: vegetation clearly detectable (top: MDF, bottom: pine splint).

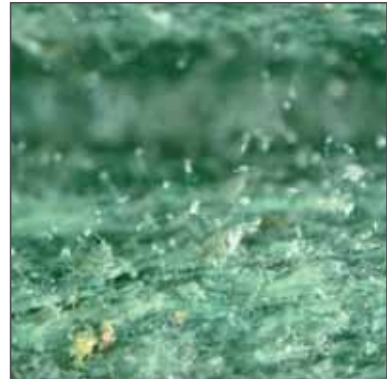


Fig. 5: Mould on test specimen 10 (H40), 40-fold enlargement.

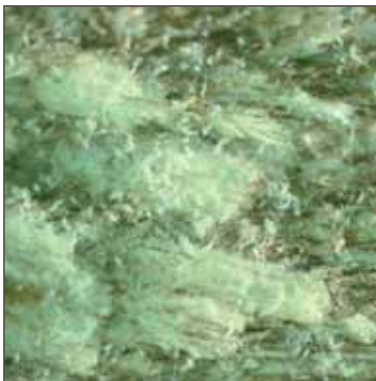


Fig. 6: Mould on test specimen 22 (H41), 40-fold enlargement.



Fig. 7: Mould on test specimen 59 (H40), 40-fold enlargement.

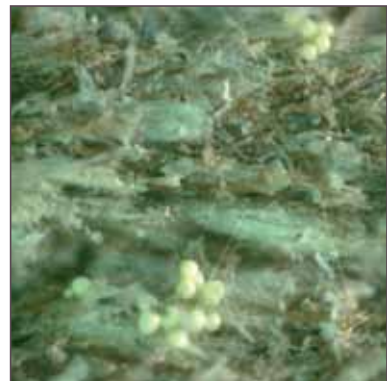


Fig. 8: Mould on test specimen 72 (H41), 70-fold enlargement.



Fig. 9: Mould on test specimen 77 (Bangkirai), 50-fold enlargement.



Fig. 10: Mould on test specimen 122 (H41), 40-fold enlargement.

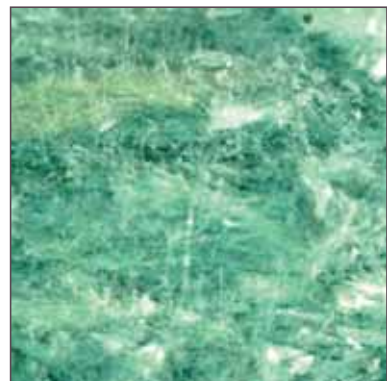


Fig. 11: Mould on test specimen 161 (H40), 40-fold enlargement.

Table 6: Wood moisture after testing **with prior subsection to washing out**
 (Average values from 6 individual values)

No.	Material	Average Rating Number			
		External infection		Self-inspection	
		Standard test	Intensified test with nutrient solution	Standard test	Intensified test with nutrient solution
1)	WPC H40-05, grey	13.7	14.9	13.5	12.6
2)	WPC H41-05, brown	13.1	12.7	12.1	12.3
3)	Bangkirai	21.7	20.9	20.4	21.6
4)	Ref. pine splint	27.2	27.6	27.1	27.4
5)	Ref. light-MDF	25.3	26.3	26.9	27.6

1.5 Evaluation/Summary

Due to the structure and colour of the WPC material, the mould vegetation was not detectable with the naked eye (Fig. 3). When observed under a reflected-light microscope however, it was clear that mould was growing on the tested variants “H40-05” and “H41-05” (Figs. 5 to 11), but at a clearly lower level than on the comparison MDF and pine split test specimens. The vegetation on Bangkirai was low when applying the standards tests and high when applying the intensified test after additional nutrients had been added. The subsection of WPC and Bangkirai to washing out did not have a significant influence on the mould resistance.

The evaluation of the resistance to mould is based on the following scheme

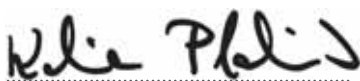
(IHD works standard VA20-25):

Bonitation level	Field of application	
	Indoor area ¹⁾	Outdoor area ²⁾
0	Resistant	Resistant
1	Moderately resistant	Resistant
2	Not resistant	Moderately resistant
3	Not resistant	Not resistant

¹⁾ All areas, where the material comes into contact with room air of common rooms.

²⁾ All areas that are not covered by the definition of indoor areas.

As the tested materials were terrace decks for outdoor areas, the final evaluation is based on the result of the test variant “intensified test condition with subsection to washing out”: The laboratory tests showed that the WPC variants “H40-05” and “H41-05” are resistant to mould when used outdoors, whereby this is not the case with regard to Bangkirai.



Dipl.-Biol. Katharina Plaschkies
 Responsible Clerk

Dresden, 28 February 2006

1.) Material and Manufacturer Designation

Product designation:
Material/substance type:
Use:
Manufacturer:

German Compact Composite

Polymer bonded wood material
Production of extruded profiles and injection moulded elements
NOVO-TECH GmbH & Co. KG
Siemensstraße 31 • D-06449 Aschersleben • Germany
Tel.: +49 (0) 3473 / 22503 - 0
Fax: +49 (0) 3473 / 22503 - 15

2.) Chemical Composition / Components Information

Composition:

Cellulose	CAS-Nr.: 9004-34-6 30 – 40 %
Hemicellulose	CAS-Nr.: 9025-53-2 18 – 24 %
Lignin	CAS-Nr.: 9005-53-2 12 – 16 %
HDPE	CAS-Nr.: 9002-88-4 0 – 40 %

3.) Possible risks

No health or environmental risks if used and handled correctly.

4.) First Aid Measures

No special measures required

5.) Firefighting measures

Suitable extinguishing agents:

water jet spray, foam, CO₂, extinguishing powder

6.) Measures in Case of Unintentional Release:

Person-related measures:

no special measures required.

Cleaning:

absorb mechanically (e.g. vacuuming)

7.) Handling and Storage

Storage:

smoking prohibited in the storage area.

Fire prevention measures:

open flame prohibited.

Handling:

to avoid electrostatic discharges, the production and handling equipment should be made of electrically conductive material and be well earthed.

With thermal processing:

extract vapours and/or ensure working areas are sufficiently ventilated.

8.) Exposure limit and personal protective equipment

Work hygiene:

comply with general protective and hygiene measures:

General protective measures:

Always wash hands before eating, drinking, smoking or using the lavatory.

Skin protection:

ensure sufficient aeration and ventilation during processing.

Eye protection:

not required

not required

9.) Physical and Chemical Properties

Form:

Wood polymer optics

Colours:

brown, black, multicoloured

Odour:

wood

pH-value (with 100g/l H₂O and 20°C):

4,5 – 6,5

Melting point:

not applicable

Fire protection classification:

Flame retardant material according to DIN EN 13501-1:2010,
Classification normal: D_{fl}-s1 (old B2)

Classification difficult: C_{fl}-s1

Boiling point (1013 hPa):

not applicable

Flashpoint:

not applicable

Ignition point:	Approx. 420°C (DIN 51 795)
Explosion limits:	not applicable
Migration:	Toy suitability according to DIN EN 71-3
Vapour pressure (20°C):	not applicable
Density (20°C):	>1.3 g/m ³
Solubility in water (20°C):	insoluble
Product designation:	polymer bonded wood materialf

10.) Stability and Reactivity

Stability:	product is stable under normal conditions. Thermal decomposition starts at approx. 180°C.
Dangerous reactions:	none known
Hazardous decomposition products:	incomplete combustion releases carbon monoxide and possibly other hazardous substances such as soot, for example.

11.) Allergens

The product does not contain any of the 14 allergen materials that are subject to mandatory declaration in accordance with the EU Food Information Regulation 1169/2011.

12.) Toxicological Information

No hazardous effects known when handled correctly.

13.) Ecological Information

The product is a wood polymer mixture that is insoluble in water and does not have any negative environmental impacts in environmental conditions. Up to 75% of the product is made from renewable raw materials.

14.) Disposal Notes

According to the European Waste Catalogue (EWC), wood PE belongs to the group of wastes from wood processing and the manufacturing of boards and furniture and to the waste type of sawdust, chips, cut waste, wood, chipboard and veneers without toxic substances, Code 03 01 05. The product can be recycled 100 % using suitable process technology. The product must be disposed of in accordance with disposal and treatment rules and regulations of the local authorities (e.g. waste incineration, waste dumps).

15.) Transport Information

Not subject to mandatory labelling/markings acc. to Directive 67/548/EEC, the Hazardous Substances Ordinance (GefStoffV) and other rules and regulations. Not a hazard acc. to applicable transport rules and regulations.

16.) Wind load strain of terrace surfaces

Lifting loads caused by wind suction must be taken into consideration when dealing with terrace floorboards that are laid parallel to the supporting construction. Dead weight in combination with the respectively designed sub-construction must compensate for these lifting loads. Depending on the plank thickness and the associated sub-construction, no lifting of the planks is expected in normal areas. Prevention against lifting must be planned on the basis of the guidelines and standards in exposed terrace areas, in the event of special boundary conditions as well as in particularly high locations.

17.) Rules and Regulations

EEC- labelling:	not subjected to mandatory labelling accord. to EEC rules and regulations.
Risk symbols, R-phrases and S-phrases:	not required.
Water pollution class:	WPC 0 (not hazardous to water)

18.) Additional Information

The information provided here mirrors the current state of knowledge and experience and serves to describe the safety-related aspects of the product. This information is not deemed to be a warranty or guarantee of product properties, however.

This product safety sheet was prepared in accordance with the second revision of directive 91/155/EEC on the basis of directive 2001/58/EC of the Commission from 27 July 2001.

This safety data sheet is valid for the following:	GCC Polymer bonded wood material
Valid as of:	01.08.2018

DELIVERY FORMS AND PACKAGING UNITS

GCC Terrace System

GCC Combiboard (19 x 130 mm)				Package contents 112 units
Length in cm	running meter	kg/unit	sqm/pack	kg/pack
300	336.00	7.71*	43.68	863.52*
400	448.00	10.28*	58.24	1,151.36*

GCC Combiboard (16 x 163 mm)				Package contents 84 units
Length in cm	running meter	kg/unit	sqm/pack	kg/pack
300	252.00	8.85*	41.08	743.60*
400	336.00	11.80*	54.77	991.40*

GCC Terrace board (25 x 138 mm)				Package contents 98 units
Length in cm	running meter	kg/unit	sqm/pack	kg/pack
300	294.00	6.32*	40.57	619.16*
400	392.00	8.42*	54.10	825.55*

GCC Terrace board (16 x 193 mm)				Package contents 70 units
Length in cm	running meter	kg/unit	sqm/pack	kg/pack
300	210.00	10.94*	40.53	765.50*
400	280.00	14.58*	54.04	1,020.60*
500	350.00	18.23*	67.55	1,276.10*

GCC Combiboard (16 x 193 mm)				Package contents 60 units
Length in cm	running meter	kg/unit	sqm/pack	kg/pack
300	210,00	10,59*	40,53	741,30*
400	280,00	14,12*	54,04	988,40*

GCC Terrace board (19 x 145 mm)				Package contents 98 units
Length in cm	running meter	kg/unit	sqm/pack	kg/pack
300	294.00	9.99*	42.63	979.02*
400	392.00	13.32*	56.84	1,305.36*

GCC Terrace board (19 x 245 mm)				Package contents 80 units
Length in cm	running meter	kg/unit	sqm/pack	kg/pack
300	240.00	18.30*	58.80	1,464.00*
400	320.00	24.40*	78.40	1,952.00*

GCC Construction beam (40 x 40 mm)				Package contents 50 units
Length in cm	running meter	kg/unit	sqm/pack	kg/pack
300	150.00	4.95*	6.00	247.50*

GCC Connector (28 x 60 mm)				Package contents 12 units
Length in cm	running meter	kg/unit	sqm/pack	kg/pack
205	24.60	1.86*	1.48	22.31*

GCC ConStep mounting plate

GCC ConStep mounting plate				Package contents 288 units
EAN Code	Article name	kg/unit	piece/pak	kg/pack
4048533021402	Mounting plate	1.60*	288	460.80*

DELIVERY FORMS AND PACKAGING UNITS



GCC Terrace System Accessories	Package content in packing units
ConStep single mount	60 units
ConStep double mount	30 units
Mounting shoe, 10 units incl. screws	10 units
Locking clamp, black, incl. screws, 50 units/pack	48 packs
Edge locking clamp, black, incl. screws, 25 units/pack	24 packs
Clip black, incl. screws, 50 units/pack	50 packs
Clip black, incl. screws, 250 units/pack	24 packs
Clip black, incl. screws, 500 units/pack	20 packs
Edge clip, black, incl. screws, 25 units/pack	25 packs
Distanz Fix, Spacers for heading joints, 10 units	12 packs
Arretier Fix, for a height locking of the butt joints, 20 units	12 packs
Screw M8 x 80 mm + washer + nut, 10 units/pack	10 packs
Screw M8 x 40 mm, 10 units/pack	25 packs
Screw M6 x 40 mm, 10 units/pack	10 packs
Slot bridge, 20 units/pack	20 packs
Spiked band, 10 m/roll	25 roll
Safety tape, self-adhesive 10 mm, 10 m/roll	25 roll
Rubber pad 60 x 100 x 20 mm	100 units
Rubber pad 60 x 100 x 10 mm	100 units
Rubber pad 60 x 100 x 3 mm	100 units
Scouring powder, 2 kg bag	8 units
Scrubbing brush	1 unit
Shaft, incl. holder and 2 wing screws	1 unit
Lower edge fixing screws 7.5 x 92 mm incl. bit and drill, TX 30	50 packs
ConStep rubber pad 300 x 300 x 3 mm	80 units
ConStep rubber pad 300 x 300 x 5 mm	80 units
ConStep rubber pad 300 x 300 x 10 mm	40 units

* These weights are approximate. Production processes may vary these weights up to 5 % of the guideline.

DELIVERY FORMS AND PACKAGING UNITS

GCC Terrace System

	Package contents	Package dimensions	Unit	Delivery form
Combiboard 19 x 130 mm	112 units of 8 each next to each other and 14 each on top of each other	1,040 x 4370 mm Lengths 300 cm and 400 cm	2 units each in full foil	In packages on untreated squared timber supports; packaging tape and edge protection
Combiboard 16 x 163 mm	84 units of 6 each next to each other and 14 each on top of each other	980 x 330 mm Lengths 300 cm and 400 cm	2 units each in full foil	In packages on untreated squared timber supports; packaging tape and edge protection
Terrace board 25 x 138 mm	98 units of 7 each next to each other and 7 each on top of each other	970 x 450 mm Lengths 300 cm and 400 cm	2 units each in full foil	In packages on untreated squared timber supports; packaging tape and edge protection
Terrace board 16 x 193 mm	70 units of 5 each next to each other and 14 each on top of each other	970 x 330 mm Lengths 300 cm, 400 cm and 500 cm	2 units each in full foil	In packages on untreated squared timber supports; packaging tape and edge protection
Combiboard 16 x 193 mm	70 units of 5 each next to each other and 14 each on top of each other	970 x 330 mm Lengths 300 cm and 400 cm	2 units each in full foil	In packages on untreated squared timber supports; packaging tape and edge protection
Terrace board 19 x 145 mm	98 units of 7 each next to each other and 7 each on top of each other	1,020 x 370 mm Lengths 300 cm and 400 cm	2 units each in full foil	In packages on untreated squared timber supports; packaging tape and edge protection
Decking board 19 x 245 mm	80 units of 4 each next to each other and 10 each on top of each other	980 x 500 mm Lengths 300 cm and 400 cm	1 unit each in full foil	In packages on untreated squared timber supports; packaging tape and edge protection
Construction beam 40 x 40 mm	50 units of 10 each next to each other and 5 each on top of each other	400 x 305 mm Length 300 cm	not wrapped in foil	In packages on untreated squared timber supports; packaging tape and edge protection
Connecting shoe 28 x 55 mm	12 units of 3 each next to each other and 4 each on top of each other	167 x 110 mm Length 205 cm	not wrapped in foil	In packages on cardboard, untreated squared timber supports; packaging tape and edge protection

GCC LED lighting system

GCC Accessories LED lighting system	Package content in packing units
Remote control set	5 pcs.
Power supply electronic ballast 40W	5 pcs.
LED-Spot Mini	40 pcs.
LED-Spot Maxi	40 pcs.
2 box distributor	10 pcs.
4 box distributor	10 pcs.
Extension cables 1,000 mm	20 pcs.
Extension cables 3,000 mm	20 pcs.
Extension cables 6,000 mm	20 pcs.

* These weights are approximate. Production processes may vary these weights up to 5 % of the guideline.

GCC Fence system

GCC BLICKFANG panel (35 x 270 mm)				Package contents 84 units	
Length in cm	running meter	kg/unit	sqm/pack	kg/pack	
160.2	134.57	4.53*	36.20	380.83*	
180.5	151.62	5.11*	40.79	429.08*	
210	176.40	5.94*	47.45	499.21*	

GCC BLICKFANG posts oval (60 x 90 mm)				Package contents 44 units	
Length in cm	running meter	kg/unit	sqm/pack	kg/pack	
220	96.80	12.98*	8.91	571.12*	
270	118.80	15.93*	10.93	700.92*	

GCC BLICKFANG bar (40 x 112 mm)				Package contents 56 units	
Length in cm	running meter	kg/unit	sqm/pack	kg/pack	
178.6	100.02	9.37*	11.20	524.68*	

GCC Fencing system accessories

GCC Fencing system accessories	Package contents in PU
BLICKFANG panel holder, 16 units/pack	12 units
BLICKFANG bar connectors, 4 units incl. M6 x 30 mm screws	28 units
BLICKFANG base plate 120 x 120 mm, incl. 4 M8 x 80 mm screws	44 units
BLICKFANG stainless steel bar 42 x 60 mm	1 unit
Insert bar for stainless steel bar	1 unit
BLICKFANG accessories set for stainless steel bar incl. post fastening, 4 rotary flange + accessories	1 unit

GCC Fence system

	Package contents	Package dimensions	Unit	Delivery form
BLICKFANG panel 35 x 270 mm	84 units of 3 each next to each other and 4 each on top of each other	780 x 450 mm Lengths 160.2 cm, 180.5 cm and 210 cm	7 units each in full foil	In packages on untreated squared timber supports; packaging tape and edge protection
BLICKFANG posts 60 x 90 mm	44 units of 11 each next to each other and 4 each on top of each other	1,110 x 350 mm Lengths 220 cm and 270 cm	1 unit each in full foil	In packages on untreated squared timber supports; packaging tape and edge protection
BLICKFANG bar 40 x 112 mm	56 units of 8 each next to each other and 7 each on top of each other	900 x 360 mm Length 178.6 cm	2 units each in full foil	In packages on untreated squared timber supports; packaging tape and edge protection
BLICKFANG fence set with stainless steel bar 1,789 x 1,854 mm	1 unit	350 x 160 mm Length 195 cm	not wrapped in foil	Inca pallet; carton; packaging tape and edge protection

DELIVERY FORMS AND PACKAGING UNITS

GCC Construction wood

GCC Construction wood oval (60x90 mm)				Package contents 44 units
Length in cm	running meter	kg/unit	sqm/pack	kg/pack
360	158.40	21.24*	14.57	934.56*

GCC Construction wood (40x112 mm)				Package contents 56 units
Length in cm	running meter	kg/unit	sqm/pack	kg/pack
360	201.60	18.89*	22.58	1,057.59*

GCC Construction wood Rhombus (20.5x81mm)				Package contents 140 units
Length in cm	running meter	kg/unit	sqm/pack	kg/pack
420	588.00	7.85*	47.63	1,099.5*

GCC Door (1.020x1.850 mm)				Package contents 1 unit
Length in cm	running meter	kg/unit	sqm/pack	kg/pack
185	-	39.60*	-	39.60*

GCC Frame (1.120x2.000 mm)				Package contents 1 unit
Length in cm	running meter	kg/unit	sqm/pack	kg/pack
200	-	47.00*	-	47.00*

GCC construction wood accessories		Package content in packing units
Clamp for construction wood Rhombus, V2A, 30 pcs./pack		48 units
Clamp for construction wood Rhombus, V2A blackened, 30 pcs./pack		48 units

	Package contents	Package dimensions	Unit	Delivery form
Construction wood oval 60x90 mm	44 units of 11 each next to each other and 4 each on top of each other	990 x 325 mm Length 360 cm	1 unit each in full foil	In packages on untreated squared timber supports; packaging tape and edge protection
Construction wood 40x112 mm	56 units of 8 each next to each other and 7 each on top of each other	900 x 360 mm Length 360 cm	1 unit each in full foil	In packages on untreated squared timber supports; packaging tape and edge protection
Construction wood Rhombus 20.5x81 mm	140 units of 14 each next to each other and 10 each on top of each other	1,050 x 300 mm Length 420 cm	4 unit each in full foil	In packages on untreated squared timber supports; packaging tape and edge protection
Door 1,020x1,850 mm	1 unit	200 x 1,020 mm Length 185 cm	not wrapped in foil	In packages on untreated squared timber supports; packaging tape and edge protection
Frame 1,120x2,000 mm	1 unit	400 x 1,120 mm Length 200 cm	not wrapped in foil	In packages on untreated squared timber supports; packaging tape and edge protection

* These weights are approximate. Production processes may vary these weights up to 5 % of the guideline.



Within these categories, our GCC wood-based panel has been certified according to Cradle to Cradle™ Certified*:

	BRONZE	SILVER	GOLD	PLATINUM
 Material Health				
 Material Reutilization				
 Renewable Energy				
 Water Stewardship				
 Social Fairness				

*Version 3.1, Renewal 27 Aug 2022, more information on certification available at www.megawood.com/c2c

Cradle to Cradle® describes a materials cycle in which the products or raw materials respectively, permanently circulate in recurring cycles “from the cradle to the cradle”. With the GCC (German Compact Composite), wooden products pass through a technical cycle so that they can always be used for the manufacturing of new products.



ZERTIFIKAT CERTIFICATE



Die HW-Zert GmbH, von PEFC Deutschland e. V. anerkannt und notifiziert, bestätigt hiermit, dass das Unternehmen

NOVO-TECH Trading GmbH & Co. KG

Siemensstraße 31
06449 Aschersleben

ein betriebliches Kontrollsystem unterhält, das mit den



Chain-of-Custody-Anforderungen von PEFC
Programme for the Endorsement of Forest Certification gemäß des deutschen Standards PEFC D 1003:2013 "Produktkettennachweis für Holzprodukte - Anforderungen" Deutsche Übersetzung des Internationalen PEFC- Standards PEFC ST 2002:2013 in der aktuell gültigen Fassung (siehe hierzu auch www.pefc.org) übereinstimmt.

Es wurde nachgewiesen, dass die Anforderungen bezüglich der **Methode der physischen Trennung** erfüllt sind und angewendet werden. Das Unternehmen hat mit der HW-Zert GmbH einen Begutachtungsvertrag abgeschlossen und wird jedes Jahr auditiert. Dieses Zertifikat berechtigt dazu, die im Geltungsbereich benannten Produkte/Produktgruppen nach der o. g. Methode als **PEFC-zertifiziert** und/oder **PEFC kontrollierte Quellen** zu verkaufen.

Art des Zertifikates:	Einzelzertifikat
PEFC-Scope:	Others
Geltungsbereich:	Produkte aus Holz-Polymer-Werkstoffen

Registriernummer HW-Zert GmbH:	HW-CoC-0354-19
Datum der Ausstellung:	15.05.2019
Dieses Zertifikat ist gültig:	01.06.2019 bis 31.05.2024


Horst Gleißer
Geschäftsführer


Wilfried Stech
Geschäftsführer



HW-Zert GmbH • Gallersberg 10 • 85395 Attenkirchen
www.hw-zert.de • info@hw-zert.de



Die HW-Zert ist notifiziert in Belgien, Dänemark, Deutschland, Finnland, Frankreich, Großbritannien, Irland, Italien, Kanada, Malaysia, Niederlande, Österreich, Polen, Portugal, Schweden, Schweiz, Slowakei, Slowenien sowie über PEFC international in allen Ländern ohne eigenes PEFC-System.



ZERTIFIKAT CERTIFICATE



ANLAGE zum PEFC-CoC-Zertifikat der HW-Zert GmbH
Nummer HW-CoC-0354-19 vom 15.05.2019

bezüglich der Chain-of-Custody-Anforderungen von PEFC
für das Unternehmen

NOVO-TECH Trading GmbH & Co. KG

Siemensstraße 31
06449 Aschersleben

Das Zertifikat umfasst neben der o. g. Zentrale folgende Organisationstelle:

ERFURT.SASSE Industry Holding GmbH & Co. KG

Siemensstraße 29
06449 Aschersleben

NOVO-TECH GmbH & Co. KG

Siemensstraße 31
06449 Aschersleben

Dieses Zertifikat ist gültig bis: **31.05.2024**

Horst Gleißner
Geschäftsführer

Wilfried Stech
Geschäftsführer



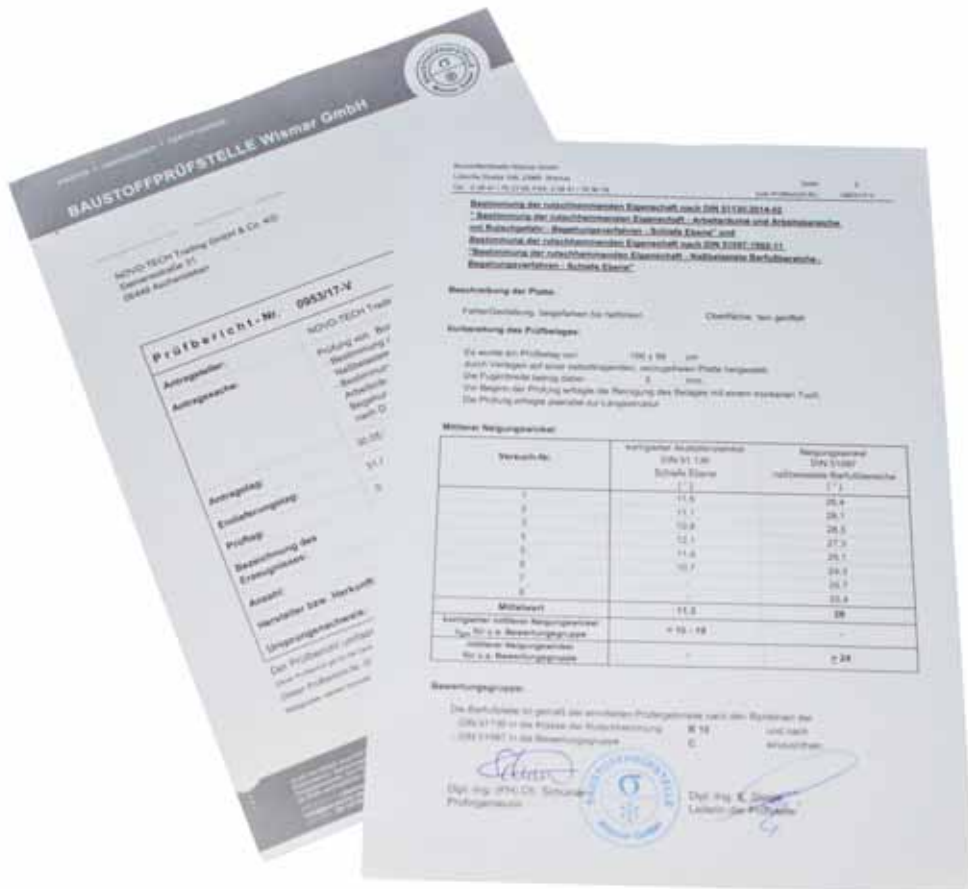
HW-Zert GmbH • Gallersberg 10 • 85395 Attenkirchen
www.hw-zert.de • info@hw-zert.de



TEST REPORT

Summary of the anti-slip properties

	Anti-slip pursuant to standard DIN 51130 (R classes)
Combiboard 19 x 130 mm	conforms with R 12
Combiboard 16 x 163 mm	conforms with R 12
Terrace board 25 x 138 mm	conforms with R 12
Terrace board 16 x 193mm	conforms with R 10
Combiboard 16 x 193 mm	conforms with R 10
Terrace board 19 x 145 mm	conforms with R 10
Terrace board 19 x 245 mm	conforms with R 10



	Fire behaviour** pursuant to DIN 13501-1
Combiboard 19 x 130 mm	normal flammability Dfl-s1
Combiboard 16 x 163 mm	normal flammability Dfl-s1
Terrace board 25 x 138 mm	normal flammability Dfl-s1
Terrace board 16 x 193mm	normal flammability Dfl-s1
Combiboard 16 x 193 mm	normal flammability Dfl-s1
Terrace board 19 x 145 mm	hardly inflammable Cfl-s1
Terrace board 19 x 245 mm	hardly inflammable Cfl-s1



** It is stipulated in the federal state building regulations that floor coverings in required stairwells, corridors and therefore also balconies and pergolas that serve as primary or secondary escape routes are to be made of hardly inflammable building materials (fire class Cfl-S1) as a minimum. The hardly inflammable boards can be used as floor coverings in primary and secondary escape routes in building regulation terms! The respective fire prevention concepts are to be inspected.

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Harald Eichler, Daniel Becher, Thomas Gasparini, Fotolia

Valid as of:

February 2021

**Information:**

All of the information is valid if the product is assembled in accordance with the construction instructions and the intended use with outdoor weathering. This brochure can be adapted to technical progress without prior announcement. The colours in photos and graphic depictions can deviate for printing reasons.