

# Declaration of Performance

DOP\_S&M-Balkonbodenplatte-D\_261017

following the provisions of the construction product regulation  
(EU 305/2011) the manufacturer declares that the product

## S&M Balkonbodenplatte „D“

Coated cement-bonded particle-board for use as a balcony floor plate in outdoor areas  
according to EN 13986:2004+A1:2015 / EN 634-2:2007

Thickness range  $t=28$  mm to  $t=40$  mm

Technical Class 1

with the intended uses according EN 13986:2004+A1:2015:

- Wood-based panels for use as structural floor and roof decking on joists and as structural wall sheathing on studs
- Wood-based panels for external use as structural components

manufactured by

**Schütz & Musch GmbH, Im Olber 12, D 72516 Scheer/Do**

at the plant

**Werk Scheer/Do**

features the following performance parameters.

The Produkt is marked with:

S&M CE DOP\_S&M-Balkonbodenplatte-D\_261017 EN 13986:2004+A1:2015 EN 634-2 Klasse 1 BFL-s1 E1 28 mm AB-Nr. <sup>1)</sup> 0763

The assessment and the verification of the constancy of performance based on System 2+.

For the product the manufacturer has established a factory production control (FPC) and performed the initial test (determination of product type) according to EN 13986:2004+A1:2015.

The notified factory production control certification body MPA Eberswalde No. 0763, performed the initial inspection of the manufacturing plant and of factory production control and the continuous surveillance, assessment and evaluation of the factory production control. A certificate of conformity of the factory production control was issued under: No. 0763-CPR-8844

Characteristic	Performance declaration	specification as per
Density	$\geq 1000$ kg/m <sup>3</sup> $g_k=1200$ kg/m <sup>3</sup>	EN 634-2:2007 EN 13986:2004 +A1:2015
Bending strength	$\geq 9$ N/mm <sup>2</sup>	
Bending stiffness (E-Modul)	$\geq 4500$ N/mm <sup>2</sup>	

<sup>1)</sup> AB-Nr.: Order number of the production

Characteristic	Performance declaration	specification as per
Internal bond	$\geq 0,5 \text{ N/mm}^2$	EN 634-2:2007 EN 13986:2004 +A1:2015
Durability, 24h (Swelling in thickness)	$\leq 1,5 \%$	
Durability (Moisture resistance) after cycle test	Internal bond: $\geq 0,3 \text{ N/mm}^2$ Swelling in thickness: $\leq 1,5 \%$	
Release of formaldehyde	E1	EN 13986:2004 +A1:2015
Reaction to fire	B-s1,d0; B <sub>fl</sub> -s1 <sup>2)</sup>	
Water vapour permeability	NPD (No Performance Determined)	
Airborne sound insulation	NPD (No Performance Determined)	
Sound absorption	NPD (No Performance Determined)	
Thermal conductivity	NPD (No Performance Determined)	
Biological durability	Use Class 3	
Content of pentachlorophenol	not definable	
Air permeability	NPD (No Performance Determined)	
Racking resistance (wall sheathing on studs)	according EN 1995-1-1/A2:2014-07 with pull-through parameter: $f_{\text{head,k}}=17,0 \text{ N/mm}^2$ (e.g. balcony screw M5 x L K16)	
Strength and stiffness for structural use	Strength and stiffness and characteristics Plate stress: $f_{m,k}=9 \text{ N/mm}^2$ $f_{c,90,k}=12 \text{ N/mm}^2$ $f_{v,k}=2 \text{ N/mm}^2$ $E_{\text{mean}}=4500 \text{ N/mm}^2$  Slab stress: $f_{m,k}=8 \text{ N/mm}^2$ $f_{t,k}=2,5 \text{ N/mm}^2$ $f_{c,k}=11,5 \text{ N/mm}^2$ $f_{v,k}=6,5 \text{ N/mm}^2$ $E_{\text{mean}}=4500 \text{ N/mm}^2$ $G_{\text{mean}}=1500 \text{ N/mm}^2$  For the characteristic stiffness values $E_{05}$ and $G_{05}$ , the calculated values apply: $E_{05} = 0,8 \cdot E_{\text{mean}}$ , $G_{05} = 0,8 \cdot G_{\text{mean}}$  $\gamma_M = 1,3$	Eurocode 5: DIN EN 1995-1-1/ NA:2013-08
Embedment strength	$(75+1,9 \cdot d) \cdot d^{-0,5} + d/10$	

Characteristic	Performance declaration					specification as per	
Mechanical durability for service class 3:	Load-duration class (LDC)					EN 13986:2004 +A1:2015	
		Perm- anent	Long- term	Medium- term	Short- term		Instant- aneous
	$k_{def}$	11,25	10,85	3,15	0,80		0,05
	$k_{mod}$	0,45	0,5	0,55	0,6	0,8	
Strength and stiffness under point load for structural use	$F_{ser,k}=4200\text{ N}; F_{max,k}=6515\text{ N}; R_{mean}=1160\text{ N/mm}^3$					Test report and expert report according to HFB Engineering GmbH, 1034	
Impact resistance for structural use	Impact Class I <sup>3)</sup>						

2) The classification applies to the following conditions:

- Metal substructure
- Maximum joint width 10 mm

In the joints, between the panels, must be insert a joint sealing cord with the label "1051 Rundprofil hitzebeständig" with a distance of 8 mm - 10 mm to panel edge. At this joint sealing cord must be apply a silicone sealant with the label "Brandschutz 340".

3)

The declared performance applies to a system with a maximal supportet span of 600 mm, an all-round bearing with at least 50 mm wide and a maximum length of 3100 mm. According to the proposal from the performance requirements "Annex B of EN 12871: 2013-09" the system fulfills the ultimate- and serviceability limit states with a characteristic point load  $Q_k = 2.0\text{ kN}$ , with the following parameters:  $\gamma_Q = 1,5$ ; Service Class 3; LDC = Medium-term;  $\psi_2 = 0,3$ .

#### Tests performed within the factory production control:

PCP- and the formaldehyde content:

MPA Eberswalde - Materialprüfanstalt Brandenburg GmbH, 0763,  
Alfred-Möller-Straße 1, D 16225 Eberswalde

Reaction to fire:

Materialprüfungsamt NRW, 0432,  
Außenstelle Erwitte, Auf den Thränen 2, D 59597 Erwitte

Strength and stiffness under point load for structural use, Impact resistance for structural use  
and mechanical durability for service class 3:

HFB Engineering GmbH, 1034,  
Zschortauer Straße 42, D 04129 Leipzig

#### Notified certification body:

MPA Eberswalde - Materialprüfanstalt Brandenburg GmbH, 0763,  
Alfred-Möller-Straße 1, D 16225 Eberswalde

For the manufacturer:  
Scheer/Do, 26.10.2017

  
\_\_\_\_\_  
Otto Schütz  
Managing Director

  
\_\_\_\_\_  
Elmar Musch  
Managing Director

  
\_\_\_\_\_  
ppa. Friedrich Jutz  
Head Quality Control