

## Product data sheet

# Rigicell 10 Ausbauplatte



**Product description:** Gypsum plasterboard acc. to DIN EN 520, type A, made of a gypsum core encased in primed cardboard.

**Area of application:** For installation of wall- and ceiling systems usually without fire protection requirements.

### Technical specifications

Parameters	Sign	Value	Unit	Certification
<b>Material</b>				
Type of material		gypsum plasterboard		
<b>Type</b>				
Type		A		EN 520
		GKB		DIN 18180
<b>Building material class</b>				
Fire behaviour		A2-s1, d0		EN 13501-1
<b>Edges</b>				
Longitudinal edge		HRK		
Transverse edge		SK		
<b>Dimensions</b>				
Thickness	t	10	mm	EN 520
Width	w	1000	mm	
Length	l	1500	mm	
<b>Tolerances</b>				
Thickness		±0,5	mm	EN 520
Width		+0/-4	mm	
Length		+0/-5	mm	
Perpendicularity: deviation per meter of width		≤2,5	mm/m	
<b>Nominal Weight</b>				
Surface-related mass	≥	6.8	kg/m <sup>2</sup>	DIN 18180

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Bulk density	≥	680	kg/m <sup>3</sup>	EN 520

### Characteristic strength values

Bending breaking load - in parallel direction of the board	≥	168	N	EN 520 / DIN 18180
Bending fracture load - in transverse direction of the board	≥	430	N	
Bending tensile strength - parallel to the fibre (in the transverse direction of the sheet)		2.9	N/mm <sup>2</sup>	Calculated
Bending tensile strength - transverse to the fibre (in the longitudinal direction of the panel)		7.5	N/mm <sup>2</sup>	
Tensile strengths - across the board fibre (in board transverse direction) approx.		1.0-1.2	N/mm <sup>2</sup>	Gypsum data book
Tensile strengths - in longitudinal direction of board approx.		1.8-2.5	N/mm <sup>2</sup>	
Modulus of elasticity - parallel to the fibre (in the transverse direction of the board)	≥	2200	N/mm <sup>2</sup>	DIN 18180
Modulus of elasticity - transverse to the fibre (in the longitudinal direction of the panel)	≥	2800	N/mm <sup>2</sup>	
Adhesion strength - of joint filler	≥	0,25	N/mm <sup>2</sup>	EN 13963
Shear strength - of the connection between panel and substructure		NPD	N	EN 520
Shear strength - vertical to the surface approx.		3.0-4.5	N/mm <sup>2</sup>	Gypsum data book
Shear strength - parallel to the surface approx.		2.5-4.0	N/mm <sup>2</sup>	
Compressive strength - perpendicular to the surface approx.		5-10	N/mm <sup>2</sup>	
Surface hardness - according to Brinell		10-18	N/mm <sup>2</sup>	EN ISO 6506-1
Improved structural cohesion at high temperatures		approved		EN 520

### Heat

Thermal conductivity	$\lambda_R$	0.25	W/m.K	EN ISO 10456
Specific heat capacity c at 20°C	c	0.96	kJ/(kg.K)	Gypsum data book
Specific heat capacity	c	960.00	kJ/(kg.K)	EN 12524
Coefficient of thermal expansion at 60% relative humidity approx.		0.013-0.020	mm/(m.K)	Gypsum data book
Limit load by heat (long-term exposure)		max. 50 (short term 60)	°C	

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Parameters	Sign	Value	Unit	Certification
<b>Humidity</b>				
Moisture expansion when the RH changes by 30% (20°C)		0.015	%	EN 318
Moisture absorption at 20°C, 80% rel. h. approx.»		1.0-2.0	mass-%	Gypsum data book
Moisture absorption at 20°C, 60% rel. humidity approx.		0.6-1.0	mass-%	
Moisture absorption at 20°C, 40% rel. humidity approx.		0.3-0.6	mass-%	
Capillary rise of water / immersion time approx. 24 h		20-22	cm	
Capillary rise of water / diving time approx. 2 h		7-8	cm	
Capillary rise of water / dive time approx. ½ h		3-4	cm	
Drying time after 2 h water storage approx.		70	hour(s)	
Water vapour diffusion equivalent air layer thickness	sd <sub>wet</sub>	0.04	m	Calculated
	sd <sub>dry</sub>	0.10	m	
Water vapour diffusion resistance factor	μ <sub>wet</sub>	4		EN ISO 10456
	μ <sub>dry</sub>	10		
<b>Miscellaneous</b>				
Air permeability		1.4 · 10 <sup>6</sup>	m <sup>3</sup> /(m <sup>2</sup> ·s·Pa)	EN 520
pH value		6-9	ph	
<b>Notes</b>				
Storage		Dry Flat and level Shady Air access		
Shelf Life		Unlimited		
Package Size		According to Pricelist		
Wast key		170802		
The values listed in this product data sheet only reflect the performance characteristics of the products. In addition, gypsum plaster systems have structural and structural properties, which can be found in our system documentation (e. g. Planen und Bauen).				