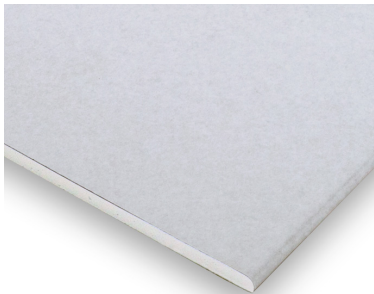


Product data sheet

Rigips 1-Mann-Platte 12.5



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

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

						
Anwendung Innenraum	Baustoffklasse	Gewicht	Plattendicke	Längskante	Querkante	Wetterfeste Lagerung

Technical specifications

Parameters	Sign	Value	Unit	Certification
Material				
Type of material		gypsum plasterboard		
Type				
Type		A		EN 520
		GKB		DIN 18180
Building material class				
Fire behaviour		A2-s1, d0		EN 13501-1
Edges				
Longitudinal edge		HRK		
Transverse edge		SK, SKF		
Dimensions				
Thickness	t	12.5	mm	EN 520
Width	w	600	mm	
Length	l	2000 / 2600	mm	
Tolerances				

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Parameters	Sign	Value	Unit	Certification
Thickness		±0.5	mm	EN 520
Width		+0/-4	mm	
Length		+0/-5	mm	
Perpendicularity: deviation per meter of width		≤2.5	mm/m	

Nominal Weight

Surface-related mass	≥	8.5	kg/m ²	DIN 18180
Bulk density	≥	680	kg/m ³	EN 520

Characteristic strength values

Bending breaking load - in parallel direction of the board	≥	210	N	EN 520 / DIN 18180
Bending fracture load - in transverse direction of the board	≥	610	N	
Bending tensile strength - parallel to the fibre (in the transverse direction of the sheet)		2.4	N/mm ²	Calculated
Bending tensile strength - transverse to the fibre (in the longitudinal direction of the panel)		6.8	N/mm ²	
Tensile strengths - across the board fibre (in board transver- se direction) approx.		1.0-1.2	N/mm ²	Gypsum data book
Tensile strengths - in longitudinal direction of board approx.		1.8-2.5	N/mm ²	
Modulus of elasticity - parallel to the fibre (in the transverse direction of the board)	≥	2200	N/mm ²	DIN 18180
Modulus of elasticity - transverse to the fibre (in the longitudinal direction of the panel)	≥	2800	N/mm ²	
Adhesion strength - of joint filler	≥	0.25	N/mm ²	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 ²	Gypsum data book
Shear strength - parallel to the surface approx.		2.5-4.0	N/mm ²	
Compressive strength - perpendicular to the surface approx.		5-10	N/mm ²	
Surface hardness - according to Brinell		10-18	N/mm ²	EN ISO 6506-1

Heat

Thermal conductivity	λ _R	0.25	W/m.K	EN ISO 10456
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Parameters	Sign	Value	Unit	Certification
Specific heat capacity c at 20°C	c	0.96	kJ/(kg.K)	Gypsum data book
Coefficient of thermal expansion at 60% relative humidity approx.		0.013-0.020	mm/(m.K)	
Limit load by heat (long-term exposure)		max. 50 (at short until 60)	°C	

Humidity

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)	
(total) water absorption after 2 h storage under water		30-50	mass-%	
Water vapour diffusion equivalent air layer thickness	$s_{d_{wet}}$	0.05	m	Calculated
	$s_{d_{dry}}$	0.13	m	
Water vapour diffusion resistance factor	μ_{wet}	4		EN ISO 10456
	μ_{dry}	10		

Miscellaneous

Air permeability		$1.4 \cdot 10^6$	$m^3/(m^2 \cdot s \cdot Pa)$	EN 520
pH value		6-9	ph	
Crystalline bound water in the plaster core approx.		16-20	%	

Notes

Storage		Dry Flat and level Shady Air access		
Shelf Life		Unlimited		
Package Size		According to Pricelist		
Wast key		170802		

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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).