

## Rigidur H<sub>sd</sub> 12,5



- Suitable for loadbearing timber frame construction
- Particularly suitable for load attachment to walls
- With a maximum in sound insulation and fire resistance performance

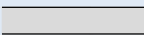
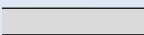


- made from natural ingredients
- Certified system solutions with Rigidur H: Durable and sustainable



- Integrated water vapour retardant
- As inner layer of exterior timber frame wall constructions

<b>Installation</b>	The Gypsum Fibreboard Rigidur H <sub>sd</sub> 12,5 contains gypsum, paper fibres and mineral additives.
<b>Application</b>	An ideal material for rigid drywall construction with excellent properties in sound absorption and fire resistance.
<b>Installation</b>	According to Rigidur installation guide

Technical data						
<b>Type</b>	GF-C1-I-W2				as per DIN EN 15283-2	
	non-combustible European Classification: A2-s1, d0				as per DIN EN 13501-1	
<b>Edges</b>	Longitudinal edges			SK		
	Transverse edges			SK		
<b>Dimensions</b>	Board thickness	12.5		[mm]		
	Width x Lengths	For possible dimensions please consult our delivery programme. Special lengths (intermediate sizes, overlength) and sheet cutting possible - delivery time on request.				
	Dimensional tolerances	Thickness	±0.2		[mm]	as per DIN EN 15283-2
		Width	+0/-2		[mm]	
Length		+0/-2		[mm]		
Squareness: deviation per m width		≤ 2.0		[mm/m]		

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Plasterboard marking	On rear side	The marking in longitudinal direction in black contains:		
		<ul style="list-style-type: none"> <li>- Rigidur H 12,5</li> <li>- CE-marking</li> <li>- EN 15283-2 GF-C1-I-W2</li> <li>- non-combustible A2-s1, d0</li> <li>- ETA 08/0147 // KOMO K23110 // ABZ Z-9.1-571</li> <li>- Production date and/or shift number</li> </ul>		
Weight	Weight per unit area	ca. 15	[kg/m <sup>2</sup> ]	as per DIN EN 15283-2
	Apperent density	ca. 1200	[kg/m <sup>3</sup> ]	as per DIN EN 15283-2
Strengths	Flexural strength	6.9	[N/mm <sup>2</sup> ]	as per DIN EN 15283-2
	Modulus of elasticity	4050	[N/mm <sup>2</sup> ]	as per DIN EN 15283-2
	Surface hardness as per Brinell	35	[N/mm <sup>2</sup> ]	as per DIN EN ISO 6506-1
Characteristic strength parameters [N/mm <sup>2</sup> ] for rating according Z-9.1-571	Bending f <sub>m,k</sub>	5.5 4.5	⊥ [MN/m <sup>2</sup> ]    [MN/m <sup>2</sup> ]	
	Tension f <sub>t,k</sub>	2.2	[MN/m <sup>2</sup> ]	
	Compression f <sub>c,k</sub>	9.0	[MN/m <sup>2</sup> ]	
	Shear f <sub>v,k</sub>	2.3 1.2	⊥ [MN/m <sup>2</sup> ]    [MN/m <sup>2</sup> ]	
	Bending modulus of elasticity E <sub>m,mean</sub>	4500 3500	⊥ [MN/m <sup>2</sup> ]    [MN/m <sup>2</sup> ]	
	Tension modulus of elasticity E <sub>t,mean</sub>	4500	[MN/m <sup>2</sup> ]	
	Compression modulus of elasticity E <sub>c,mean</sub>	4500	[MN/m <sup>2</sup> ]	
	Shear modulus of elasticity G <sub>mean</sub>	1300	⊥ [MN/m <sup>2</sup> ]	
	Characteristic embedding strength f <sub>h,k</sub>	f <sub>h,k</sub> = 127 x d <sup>-0.7</sup>	[N/mm <sup>2</sup> ]	
		<p>d = diameter of the connector</p> <p>The characteristic load bearing value of connectors shall be determined by using the following formula (Board thickness t ≥ 7d):</p> $R_k = 0.7 \times \sqrt{2 \times M_{y,k} \times f_{h,1,k} \times d} \quad [N]$ <p>With My,k = characteristic value of yield moment from connector [Nmm]</p>		

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	Class of load duration	Service Class 1	Service Class 2	according to Z-9.1-571	
calculation value	modification factor $K_{mod}$	permanent long average Shortterm Very short	0.20 0.40 0.60 0.80 1.10	0.15 0.30 0.45 0.60 0.80	
	Deformation value $k_{def}$	permanent long average Shortterm	3.0 2.0 1.0 0.35	4.0 2.5 1.25 0.5	
	partial safety factor $\gamma_m$	1.3			
	Heat	Thermal conductivity $\lambda_{R, \lambda_{10, dry}}$	0.350 0.202	[W/(m x K)]	as per DIN EN 12667
		Thermal dilatation	0.015	[mm/(m x K)]	referring to DIN EN 318
Thermal threshold stress (long-term load)		max. 50	[°C]	short-term load 60°C	
Humidity	Water vapour permeability $\mu$	1.423	[-]	as per DIN EN 12524	
	Water vapour diffusion-equivalent air layer thickness $s_d$	4,6	[m]	as per DIN EN ISO 12527	
	Surface water absorption	≤ 1500	[g/m <sup>2</sup> ]	after 30 minutes	as per DIN EN 15283-2
	Thickness dilatation after 24h immersion in water	≤ 2	[%]		referring to DIN EN 317
	Dilatation due to changing of relative humidity by 30% (20°C)	0.045	[%]		as per DIN EN 318
	Stable moisture content at 20°C, 65% relative humidity	1-1.3	[%]	as per DIN EN 322	
Sign	The values given in this product data sheet solely describe the performance characteristics of the products. Rigips-Systems also have far-reaching structural-physical and static properties, which can be found in our system documentation (e.g. Planen und Bauen).				

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