

How HI-MACS® stands up against all the elements:

Technical Properties

SPECIFICATION		RESULT	UNIT	TEST METHODS
Flexural E-modulus	Ef	8900	MPa	DIN EN ISO 178
Flexural strength	σ fm	76,9	MPa	DIN EN ISO 178
Breaking elongation	ϵ fm	1,01	%	DIN EN ISO 178
Resistance		$> 1 \times 10^{12}$	Ω	EN61340-5-1
				DIN IEC 61340-4-1
Diffusion resistance coefficient	μ	1807		DIN EN ISO 12572
Density		1,71	g/cm ³	ISO 1183
Heat conductance	λ_{10tr}	0,636	W/mK	DIN EN 12664
Resistance to thermal expansion	R	0,048	m ² K/W	DIN EN 12664
Thermal expansion coefficient	α	0,048	mm/mK	prEN 14581
Linear expansion coefficient		max. 30×10^{-6}	m/°C	
Tensile resistance	σ fm	32,7	MPa	DIN EN 527
Water absorption		< 0,1	%	DIN EN 438 – part 12
SBI fire performance		B – d0 – s1		DIN 13501

*applicable to HI-MACS® FR S728 Alpine White, tested with subconstruction and insulation

Fire performance

PRODUCT CONCERNED	TEST METHOD	RESULTS
HI-MACS® FR - 12mm	DIN EN 13501-1, tested with sub-construction and insulation	B-s1, d0
HI-MACS® FR - 12mm	N FP 92-501 1995	M1
HI-MACS® FR - 12mm	DIN 4102-1 EN 13501-1	B1 B-s1,d0
HI-MACS® FR - 9mm with back up	DIN 4102-1	B1
HI-MACS® FR - 9mm without back up		

HI-MACS® is ETA (European Technical Approval) certified*.

* Fixed with KEIL inserts and a BMW structure, HI-MACS® facade in S728 - Alpine White successfully passed the ETA tests (European Technical Agreement).