

Technical data sheet

HI-MACS® is extremely resistant to dirt and wear and tear, so that you can enjoy many years' peace of mind with the outstanding quality of your new product.

SPECIFICATION	UNIT	RESULT SOLIDS	RESULT GRANITE	TEST METHODS
Flexural-E-modulus	MPa	8900	7730	DIN EN ISO 178
Flexural strength	MPa	70.1	64.3	ASTM D638
Breaking elongation	%	1	1.1	DIN EN ISO 178
Tensile strength	MPa	69.5	56.3	DIN EN ISO 527
Density	g/cm ³ kg/m ³	1.75 1750	1.65 1650	ISO 1183 ISO 1183
Ball indentation hardness	N/mm ²	257	239	DIN EN ISO 2039-1
Mohs hardness		2 to 3	2 to 3	EN 101
Pencil hardness		>9H	>9H	ISO 15184
Water absorption weight strength/thickness		<0,1% <0,1%	<0,1% <0,1%	DIN EN 438 Part 12
Impact resistance impactor drop ball test (fall height)	N mm	≥25 ≥1500	≥25 ≥1500	E DIN EN 438, 02/02 Part 2/20 E DIN EN 438, 02/02 Part 2/21
Slip resistance		>0,32 – 0,9		GMG100 (replaces R9)
Slip resistance		angle of acceptance of more than 10° to 19° = R10		DIN 51130
Climate change resistance	°C	≥0,05	≥0,05	AMK
Dry heat (pan base)	°C	≥100 (7C)		DIN 68 861, Part 7, 04-'85
Damp heat (pan base)	°C	≥100 (7C)		DIN 68 861, Part 8, 04-'85
Temperature change resistance	°C	no change		UNI 9429
Resistance to cigarette burns		6C	6B	DIN 68 861, Part 6, 11-'82
Scratch resistance		4D	4B	DIN 68 861, Part 4, 11-'81
Electrostatics Conductivity	>1x10 ¹² Ω	insulating non-conductive		DIN IEC 1340-4-1, 04-'92 EN 61340-5-1
Thermal conductivity	W/mK	0.636	0.55	DIN EN 12664
Thermal resistance	m ² K/W	0.038	0.045	DIN EN 12664
Thermal Expansion Coefficient for Standard HI-MACS® Products	mm/mK m/m/°C	0.048 48 x 10 ⁻⁶	0.055	DIN EN 14581
Water vapor transmission properties – diffusion resistance factor	μ	18607	16150	DIN EN ISO 12572
Dimensional change by change in relative humidity length thickness mass	% % %	-0.03 0.06 0.05	-0.02 0.03 0.05	DIN EN 318, edit. 5, 1998
Resistance to boiling water increase in weight increase in thickness	% %	<0,1 <0,1	>0,1 <0,1	E DIN EN 438, 02/02 Part 2/12
Light fastness (Xenon)	scale 0 – 10	better than 6	better than 6	DIN 53 387, 04-'89
Food tolerance		suitable for all colours		LMBG § 31
Hygiene		suitable	suitable	LGA Hygiene Certificate

SPECIFICATION / SUBJECT	MATERIAL THICKNESS	RESULT	PRODUCT TESTED	TEST METHOD
Fire Classification	12 mm	B1	HI-MACS® colour range** S928, M551, G554	DIN 4102
		B1	S028 (standard)	DIN 4102 / ABP
		M1	S728, S828, S028, T017, VW01, W001	NF P92-501
		B - s1 - d0	HI-MACS® colour range** (2007)	EN 13501-1
	12 mm plus fibre cement board	B - s1 - d0	HI-MACS® colour range** (2014)	EN 13501-1
	12 mm	B - s1 - d0	S728 CE MED	EN 13501-1 / SBI
		C - s1 - d0	S928	EN 13501-1
		passed	S028 (standard)	DIN 5510
		passed R1/HZ3	S728 CE MED	EN 45545
		IMO certified	S728 CE MED	Module B & Module D
HI-MACS Exteria®		12 mm	ETA	S728
		Avis Technique	S828	CSTB

* Not currently applicable to Strato, Ultra Thermoforming and Intense Ultra.

** Products tested in the year 2007 and 2014: Alpine White, Fiery Red & Black.