

## Dimensions – Sheet material

### Standard Format

SHEET THICKNESS IN MM	SHEET WIDTH IN MM	SHEET LENGTH IN MM
3	930	3000 *
6	760	2490
6	910	2490 *
9	760	3680
9	910	3680 *
12	760	3680
12	910	3680 *
12	1350	3680 *
19	760	3680 *

\* Only available in S028 Alpine White.

\*\* Only available in S001 Satin White, S005 Grey, S006 Arctic Granite, S009 Cream, S022 Black, S025 Fiery Red, S104 Toffee Brown, S201 Nougat Cream.

\*\*\* Only available in S028 Alpine White and S006 Arctic White.

\*\*\*\* Only available in Solid colours.

### Special Format

SHEET THICKNESS IN MM	SHEET WIDTH IN MM	SHEET LENGTH IN MM
3	930	3000 **
6	910	2490 ***
9	910	3680 ***
12	910	3680 ***
12	1350	3680 ***
19	760	3680 ****

### Size matters –

#### to increase efficiency and reduce offcuts

HI-MACS® can be supplied in different sheet thicknesses, formats and sizes. Ideal for maximum cutting, minimum wastage and minimal costs. However, not all colours are available in all thicknesses. Please see the colour charts on the following pages for exact availability.

#### HI-MACS® fire resistant quality significantly widens the fields of application

HI-MACS® FR-version sheets are available in S728 Alpine White and manufactured to order in S801 Nougat Cream, S729 Ivory White, S706 Arctic White and S705 Grey.

Sheets in S728 Alpine White comply with the IMO Standard Modules B+D and M1. FR sheets are especially suitable for use in public buildings, external facades and in the marine industry.

## Chemical resistance

HI-MACS® is a fully homogenous material with no pores and is thus simple and easy to clean.

TEST SUBSTANCE	APPLICATION TIME	EVALUATION OF G02 CHANGES	EVALUATION OF S06 CHANGES
Acetic acid	16h	no change	no change
Citric acid	16h	no change	no change
Sodium carbonate	16h	no change	no change
Ammonium hydroxide	16h	no change	no change
Ethyl alcohol	16h	no change	no change
White wine, red wine	16h	no change	no change
Beer	16h	not tested	not tested
Cola drinks	16h	no change	no change
Instant coffee	16h	no change	no change
Black Tea	16h	no change	no change
Blackcurrant juice	16h	no change	no change
Cream	16h	no change	no change
Water	16h	no change	no change
Petrol	16h	no change	no change
Acetone	16h	3	3
Ethyl butyl acetate	16h	3	3
Butter	16h	no change	no change
Olive Oil	16h	no change	no change
Mustard	16h	no change	no change
Salt	16h	no change	no change
Onions	16h	no change	no change
Lipstick	16h	no change	no change
Common household disinfectant	16h	no change	no change
Black pen – ballpoint	16h	2	2 – 3
Stamping ink	16h	1	1
Cleaning agent	16h	no change	no change
Cleaning solution	16h	no change	no change
Wear resistance group according to DIN 68861*	16h	1B	1B
Evaluation according to DIN 68930 Table 1 Other work surfaces: wear resistance group: «1C»		Requirement met +	according to DIN 68861 & DIN 68930

## Technical data sheet

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

SPECIFICATION	UNIT	RESULT		TEST METHODS
		SOLIDS	GRANITE	
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 <sup>3</sup> kg/m <sup>3</sup>	1.75 1750	1.65 1650	ISO 1183 ISO 1183
Ball indentation hardness	N/mm <sup>2</sup>	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 <sup>12</sup> 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 <sup>2</sup> K/W	0.038	0.045	DIN EN 12664
Thermal expansion co-efficient	mm/mK m/m/°C	0.048 30.0 x 10 <sup>-6</sup>	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
Fire protection classification Flame-retardant properties MPA/NRW HI-MACS® MPA/NRW (BAM) 12 mm (BAM) 9 mm + back-up (Bodycote/Warrington) 12 mm		B1  non-dripping material B1 for all colours* B1 for all colours* B-s1 , d0 for all HI-MACS® colours* complies with BS 476 class 0		DIN 4102-1  DIN 5510  DIN 4102-1 BS EN ISO 11925-2 : 2002 BS EN 13823: 2002
* not currently applicable to Marmo, Galaxy, Volcanics, Lucent and Eden				