M.M. S.R.L.
Fiberglass Reinforced Polymer gratings and structures
Via Antonio Zanussi, 300/302
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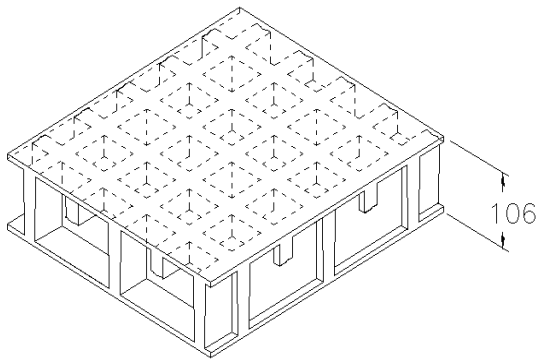
SCH 52/100DC_IFR
06.05.2011 - Rev. 4

MOLDED GRATINGS

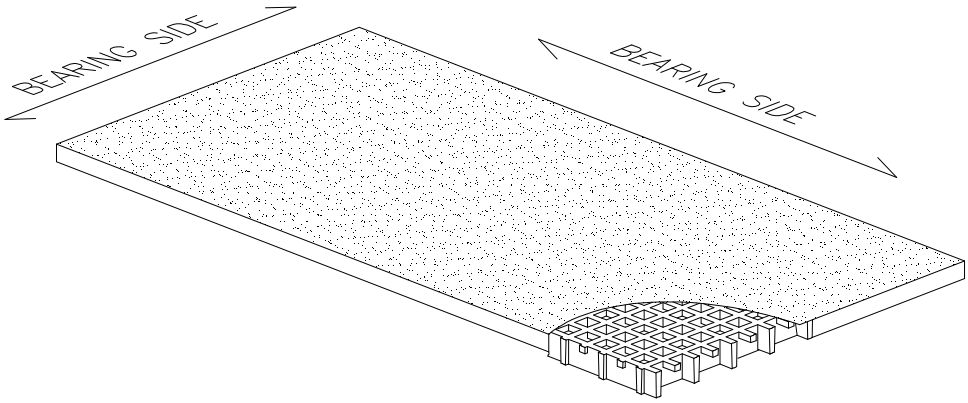
Mesh	**mm 52 x 52** main	
	mm 26 x 26 secondary	
Thickness	**mm 106**	
Cover thickness	**mm 3** upper cover	
	mm 3 bottom cover	
Bearing bar thickness	**mm 10** upper part	
	mm 8 bottom part	
Color	**Grey RAL 7004** *indicative RAL reference*	



Raw materials	***Polyester Resin***
	Roving glass fiber + Mat and Woven Fabric type"E"
	Inorganic fillers without halogens

Resin type	***Modulus of elasticity***	***Ultimate stress***
IFR	15000 MPa	130 MPa

Standard panels	
mm 1005 x 1510	
Weight kg/m² 70	
tolerance	± mm 5 panel dimensions
	± mm 2 height



Surface	A	**Quartz**	***Antiskid level R13 V4 norm DIN 51130***

Reaction to fire	***Fire retardant***	**Spread ≤ 25 norm ASTM E84-98**
		Level B_{fl}-S1 norm EN 13501-1

Ageing resistance	**Ageing test made with UV lamp according to ASTM G154-06 and passed with 5 points on the gray range and without evident defects** (test made with 1500 hours of exposure to 4 hours alternate cycles at a UV temperature of 60°C and 4 hours at a condensed temperature of 50°C irradiated by UVB 313 nm lamp, radiance 0,71 W/m²)
	After the exposure to heat, cold and humidity cycles according to UNI EN ISO 9142/04 norm (n° 21 cycles type D3) there is no evidence of defects

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LOADS

MAXIMUM SUGGESTED LOADS

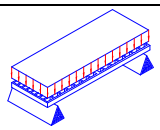
Type of support	**On the line of the two ends of the panel**

Limits determined by	**Deflection** (load sagging)

the **maximum deflection admitted,** is 1/200 of the distance between the supports

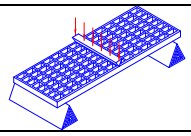
According to the standard DIN 24537-3 deviation due to the load may be no more than 1/200 of the land width and the difference in height between neighbouring joints between loaded and unloaded floor coverings may be no more than 4 mm.

DISTRIBUTED LOAD



Distance between supports [cm]	Load with deflection equal to 1/200 [kg/m²]	Load with deflection equal to 1/100 [kg/m²]
80	35450	70950
100	18150	36350
120	10500	21000
140	6600	13200

CONCENTRATED LOAD



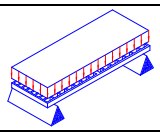
Distance between supports [cm]	Load with deflection equal to 1/200 [cm]	Load with deflection equal to 1/100 [cm]
80	17700	35450
100	11350	22700
120	7850	15750
140	5750	11550

All lighter loads are admitted

Limits determined by	**Admitted stresses** (stress determined by the load)

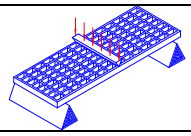
the **maximum admitted stress** is 1/5 of the ultimate stress
(safety factor is equal to 0.20 – the ultimate stress is 5 times the specified load)

DISTRIBUTED LOAD



Distance between supports [cm]	Maximum admitted load [kg/m²]
80	19350
100	12350
120	8600
140	6300

CONCENTRATED LOAD



Distance between supports [cm]	Maximum admitted load [kg/m]
80	7700
100	6150
120	5150
140	4400

All lighter loads are admitted

- The above characteristics are meant as reference values for standard material in ambient working temperature. Even if they are not to be considered as guaranteed characteristics they are based on our experience and are supplied in good faith.
- According to the standard DIN 24537-3 the conversion safety factor should be 0.75 for internal environmental exposure conditions, 0.65 for external exposure conditions, and 0.50 for aggressive exposure conditions.
- No matter which are the exposure conditions, chemical resistance must be always verified by contacting M.M.technical department.
- In case of heavy duty load compressive strength must be verified.