

M.M. S.R.L. Fiberglass Reinforced Polymer gratings and structures

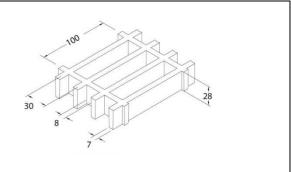
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SCH 30/28\_VIN 06.05.2011 - Rev. 4

# MOLDED GRATINGS

Mesh	mm 100 x 30	
Clear span	mm 92 x 22	
Height	mm 28	
Bearing bar	mm 8 upper part	
thickness	mm 7 bottom part	
Color	Natural Translucent	



	Vinylester resin
Raw materials	Roving glass fiber type "ECR"
	Without inorganic fillers

Resin type	Modulus of elasticity	Ultimate stress
VIN	12250 MPa	310 MPa

Standard panels	
mm 1000 x 2000	
mm 1200 x 3000	
mm 1500 x 2000	
Weight kg/m <sup>2</sup> 12	
tolerance ± mm 5 panel dimensions   ± mm 2 height	

	S	Smooth	Antiskid level R10 V10 norm DIN 51130
Surface	М	Meniscus	Antiskid level R13 V10 norm DIN 51130
	А	Quartz	Antiskid level R13 V10 norm DIN 51130

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/m <sup>2</sup> )
	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	Load with deflection equal	Load with deflection equal
	to 1/200	to 1/100
[cm]	[kg/m²]	
50	1750	3500
70	600	1250
90	300	600
110	150	300

Limits determined by

	CONCENTRATED LOAD		
	Distance between supports	Load with deflection equal to 1/200	Load with deflection equal to 1/100
-	[cm] 50	 500	<sup>/m]</sup> 1050
	70	250	550
	90	150	300
	110	100	200

All lighter loads are admitted

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	and the second s	CONCENTRATED LOAD	
Distance between supports	Maximum admitted load	Distance between supports	Maximum admitted load
[cm]	[kg/m <sup>2</sup> ]	[cm]	[kg/m]
50	6400	50	1600
70	3250	70	1150
90	1950	90	850
110	1300	110	700

#### 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.

- In case of heavy duty load compressive strength must be verified.

<sup>-</sup> 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.

<sup>-</sup> No matter which are the exposure conditions, chemical resistance must be always verified by contacting M.M. technical department.