FRP / GRP Grating — Allowable Load Table

NANTONG ZEALL (ZeAllgrate) · moulded and pultruded fibreglass grating · deflection limit L/200, simply supported single span. Indicative allowable uniform loads for preliminary sizing.

1. Allowable uniform load (kN/m^2, L/200, simply supported single span)

Build-up	600 mm span	900 mm span	1200 mm span
Moulded 25 mm	12.5	6.0	3.2
Moulded 38 mm	25	12	6.5
Moulded 38 mm, 50 x 50 mesh	22	10	5.5
Pultruded 38 mm	35	18	9
Pultruded 50 mm	48	26	14
Pultruded 65 mm (HD)	62	35	20

Figures are indicative allowable uniform loads only. Concentrated loads, cantilever and point-load cases need a separate check and cannot be read from this table.

2. Moulded grating — panel weight and open area

Thickness (mm)	Weight (kg/m²)	Open area
25	12.5	68 %
30	15.0	66 %
38	19.5	68 %
38, 40 x 40 mesh	18.0	70 %
50	27.0	60 %
65 (HD)	38.0	56 %

Standard panel 1220 x 3660 mm. A full 38 mm panel weighs about 87 kg.

3. Pultruded grating — T-bar / I-bar unit weight (kg/m)

Profile	25 mm	38 mm	50 mm	76 mm
T-bar	7.5 – 9.5	11.5 – 13	15 – 17	—
I-bar	about 10.5	12.5 – 14.5	16.5 – 19	23 – 26

4. Conversion factors

Weight	1 kg/m² = 0.2048 lb/ft²
Pressure	1 kN/m² ≈ 20.9 lb/ft²

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