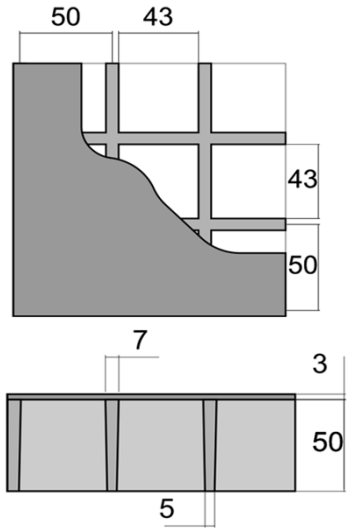
Technical Data Sheet

IFR 53/50x50/7x5 - Covered



IFR - Isophtalic Fire Resistant

Type: Cast molded grating. (TWS = GRP = FRP = GFK)

Material: Isophtalic resin reinforced with fiberglass rovings

Color: Similar to the one specified in the RAL palette

Chemical Resistance:
- According to the Merim chemical resistance chart
- Chemical resistance depends on the type of resin used

Tolerances:

- Length and width:		+2 / -4 mm
- Height:		+2 / -2 mm
- Weight:	31,5 kg/m2	+/- 10%
- Warping:		< 10 mm / mb

Structure:

- Mold	- high quality Isophtalic resin
- Surface	- Covered
- Resin content:	- about 60%
- Glass content:	- about 40%

Fire Resistance:
- Self-extinguishing according to DIN EN 13501-1
- Classification in accordance with EN 13501-1 level Bfl-S1

Anti Slip: - Class: 37,5 ° - R 13 according to BRG 181 and DIN 51130

Other:

- Standard operating temperature range:	- 40 ˚C / + 80 ˚C
- Maximum operating temperature range:	- 100 ˚C / + 155 ˚C

- resistance to UV radiation
- Good electrical insulator - does not conduct electricity
- Good thermal insulator - does not conduct heat

MERiM Sobiczewski Sp. k.
ul. Muzealna 1
42-263 Kolonia-Brzeziny

NIP: 949-219-95-31
REGON: 360149499
KRS: 0000530287

In accordance with the standards: EN ISO 14122-2: 2016 and DIN 24537-3, the following is adopted:

The minimum loads to be considered for walkways and working platforms are as follows:
- 2.0 kN / m2 with a uniform load on the structure;
- 1.5 kN with a concentrated load applied in the most unfavorable place
on a floor area of 200 mm x 200 mm.

The deflection of the floor surface after applying the load assumed in the design should not be greater than L/200 of the span of the supports.

The difference in height between the loaded floor surface and the adjacent unloaded floor surface should not exceed 4 mm.

If the deflection is L/200> 4mm, it is recommended to use a connector.

According to BGI / GUV-I 588-1, the minimum support of the grating should be equal to the height of the grating, but not less than 30 mm.

Load capacity table of the gratings (100 kg ≈ 1 kN):

Support spacing [L]	300	400	500	600	700	800	900	1000	1100
Fv	2,00	2,00	2,00	2,00	2,00	2,00	2,00	2,00	2,00
fv	0,04	0,08	0,12	0,16	0,36	0,55	0,75	1,10	1,98
Fp	1,50	1,50	1,50	1,50	1,50	1,50	1,50	1,50	1,50
fp	0,12	0,23	0,34	0,45	0,79	1,13	1,47	2,07	2,67
L/200	1,50	2,00	2,50	3,00	3,50	4,00	4,50	5,00	5,50

Support spacing [L]	1200	1300	1400	1500	1600	1700	1800	1900	2000
Fv	2,00	2,00	2,00	2,00	2,00	2,00	2,00	2,00	2,00
fv	2,87	3,76	4,65	5,53	7,57	9,61	11,64	13,67	15,70
Fp	1,50	1,50	1,50	1,50	1,50	1,50	1,50	1,50	1,50
fp	3,28	3,88	4,48	7,42	10,01	12,66	15,34	18,05	20,78
L/200	6,00	6,50	7,00	7,50	8,00	8,50	9,00	9,50	10,00

Fv - 2 kN/m2 of uniform load on the structure

fv - deflection for "Fv" load [mm]

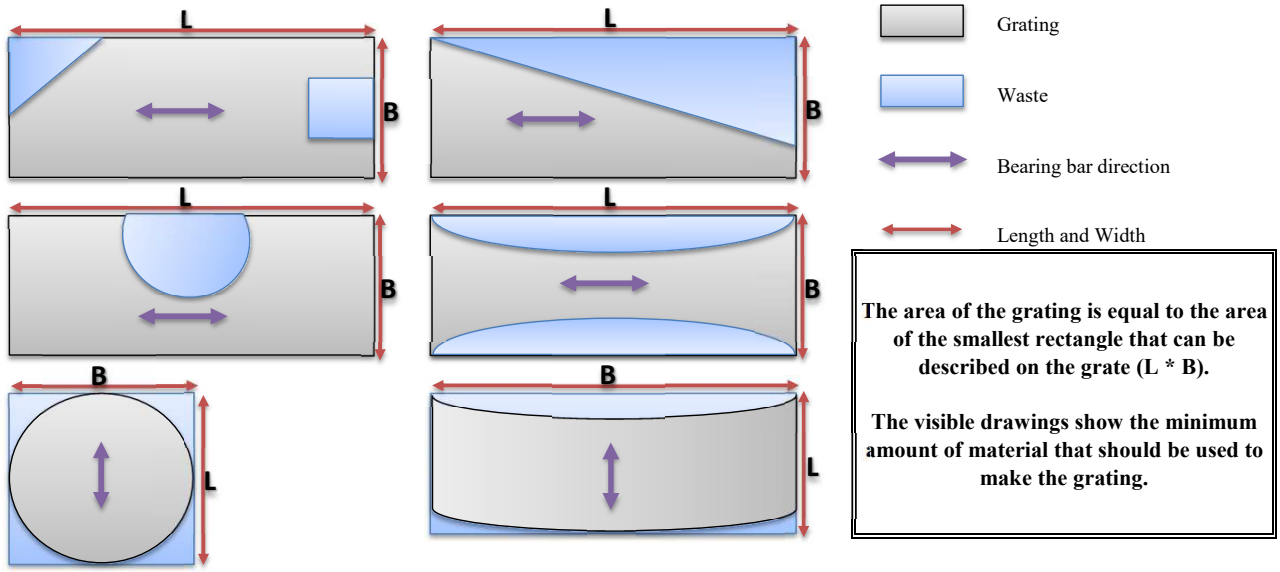
Fp - 1.5kN concentrated load on the surface of 200x200 mm

fp - deflection for "Fp" load [mm]

Compliant with L/200

Does not comply with L/200

The method of calculating the surface of gratings:



The area of the grating is equal to the area of the smallest rectangle that can be described on the grate (L * B).

The visible drawings show the minimum amount of material that should be used to make the grating.

*** - Product Technical Data Sheet may be changed without prior notice.**

This document and the information it contains are based on data believed to be reliable, however factors such as environmental changes, application or installation, changes to operating procedures or data extrapolation may produce different results.