

Technical data sheet – Perforated metal planks

Test results of serration

Gratings and perforated metal planks used as self-supporting floor coverings

Basis of the tests: Instruction sheet ZH 1/571 for flooring in working rooms and working areas where there is a potential slipping hazard. Tests have been done by the “Berufsgenossenschaftliches Institut für Arbeitsschutz – BIA, St. Augustin

The following table shows the test results of Lichtgitter products.

Type	Serration No.	Surface treatment	Pitch (mm)	Serration class	Displacement
Gratings out of steel S235JR					
SP 330-34/38-3	----	galvanized	34x38 mm	R 10	V 10
P 330-33-3	----	galvanized	33x33 mm	R 10	V 10
P 230-33/11-3	----	galvanized	33x11 mm	R 9	V 10
XSP 330-34/38-3	1	galvanized	34x38 mm	R 10	V 10
XSP 330-34/38-3	11	galvanized	34x38 mm	R 11	V 10
XP 230-33-3	2	galvanized	33x33 mm	R 12	V 10
XP 230-33/22-3	2	galvanized	33x22 mm	R 12	V 10
XP 230-33/11-3	2	galvanized	33x11 mm	R 12	V 10
XP 430-33-4	2	galvanized	33x33 mm	R 11	V 10
XP 330-33/22-3	22	galvanized	33x22 mm	R 12	V 10
XP 230-33-3	22	galvanized	33x33 mm	R 13	V 10
XP 330-33-3	22	galvanized	33x33 mm	R 12	V 10
XP 230-33-3	3	galvanized	33x33 mm	R 11	V 10
XP 330-33-3	3	galvanized	33x33 mm	R 11	V 10
XP 230-33-3	31	galvanized	33x33 mm	R 12	V 10
XP 330-33-3	31	galvanized	33x33 mm	R 12	V 10
XP 430-33-4	31	galvanized	33x33 mm	R 11	V 10
XP 530-33-5	31	galvanized	33x33 mm	R 11	V 10
XP 330-44-3	31	galvanized	44x44 mm	R 12	V 10
XP 230-33/11-3	32	galvanized	33x11 mm	R 10	V 10
XP 230-33/11-3	4	galvanized	33x11 mm	R 11	V 10
XP 230-33-3	4	galvanized	33x33 mm	R 11	V 10
XP 330-33-3	4	galvanized	33x33 mm	R 11	V 10
XP 430-33-4	4	galvanized	33x33 mm	R 11	V 10
XP 530-33-5	4	galvanized	33x33 mm	R 11	V 10
XP 230-33/11-3	42	galvanized	33x11 mm	R 10	V 10
XP 230-33-3	42	galvanized	33x33 mm	R 11	V 10

Gratings out of stainless steel

XP 225-33-3	3	pickled	33x33 mm	R 12	V 10
XP 225-33-3	31	pickled	33x33 mm	R 13	V 10

XP 325-33-3	31	pickled	33x33 mm	R 12	V 10
XP225-25-3	31	pickled	25x25 mm	R 13	V 10
XP 325-25-3	31	pickled	25x25 mm	R 12	V 10
XP 525-25-5	31	pickled	25x25 mm	R 12	V 10
XP 525-33-5	31	pickled	33x33 mm	R 12	V 10

Gratings out of Aluminium AlMg 3G22

XP 225-33-3	3	pickled	33x33 mm	R 13	V 10
XP 225-33-3	31	pickled	33x33 mm	R 13	V 10
XP 225-33-3	4	pickled	33x33 mm	R 13	V 10

Perforated metal planks out of steel S235JR

BR 50/2		galvanized	rhombic	R 11	V 10
BP 50/2		galvanized	parallel	R 11	V 10
BP-Ü 50/2		galvanized	parallel raised	R 12	V 10
BN-G 50/2		galvanized	closed	R 9	
BN-O 50/2		galvanized	open	R 11	V 10
BZ 50/2		galvanized	tooth	R 11	V 10
BP 50/2		*see below	parallel	R 11	V 10
BZ 50/2		* see below	tooth	R 13	V 10
BN-G 50/2		* see below	closed	R 9	
BN-O		* see below	open	R 11	V 10
BN-G		galvanized sanded with quartz	closed	R 12	

* Continuously hot dipped material quality DX51D+Z200 MAC acc. to DIN EN 10327

Perforated metal planks out of stainless steel

BP 50/2		pickled	parallel	R 11	V 10
BN-O 50/2		pickled	open	R 11	V 10
BZ 50/2		pickled	tooth	R 12	V 10

Perforated metal planks out of Aluminium AlMg 2G22

BP 50/2		pickled	parallel	R 11	V 10
BN-O 50/2		pickled	open	R 11	V 10
BZ 50/2		pickled	tooth	R 13	V 10

GRP-gratings our of UP-GF

GRP-K 630-19-6			concave	R 13	V 10
GRP-K 538-38-6			concave	R 13	V 10

GRP-gratings out of UP-GF with quartz sand 05-1,0 mm

GFK-K 638-38-6			sanded	R 12	V 10
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Tailor-made stairtreads

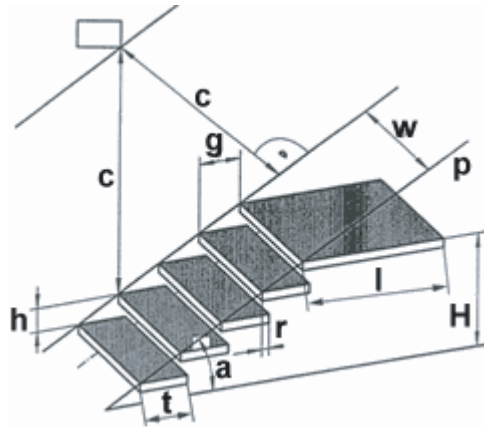
Requirements

Requirements for stairs made out of steel (DIN EN ISO 14122-3)

The rise “h” and going “g”, shall meet the formula, $600 \leq g + 2h \leq 660$. The overlap, “r” of step or landing shall be ≥ 10 mm. The length of landing “l” shall be at least 800 mm and in any case \geq the width of the stair, “w”.

On the same flight, the rise shall be constant wherever possible. In the case where it is not possible to maintain the height of the rise between the level of departure and the lower step, it may be reduced by a maximum of 15%.

H = Climbing height, r = Overlap, g 0 Going, α = Angle of pitch, e = Headroom, w = Width, h = Rise, p = Pitch line, l = Length of landing, t = Height of step, c = Clearance



Perforated metal planks

Surface treatment

Surface treatment for steel gratings and steel for construction applications, in accordance with to DIN EN 10025

- Galvanizing acc. to DIN EN ISO 1461 (hot dip galvanized)
- Galvanized followed by bitumen dipping
- Plastic coating *, also on galvanized surfaces (colours according to RAL)
- Baked paint*, also on galvanized surfaces (colours according to RAL)

Gratings and perforated metal planks made of stainless steel, material acc. to DIN 17440

- Pickled
- Electrochemically polished
- Glass bead blasting

Gratings and perforated metal planks from aluminium, material acc. to DIN EN 485 and DIN EN 573

- Pickled
- Baked paint* (colours according to RAL)
- Anodised
- Plastic coating* (colours according to RAL)

* A coating with epoxy resin powder for outside areas is not recommended. For these areas, a polyester powder coating should be used.

Gratings and perforated metal planks receive a surface protection to avoid potential corrosion.

Gratings manufactured from stainless steel and aluminium generally do not need a corrosion protection. At least one after-treatment by pickling or anodising is recommended.

Hot dip galvanizing (usual corrosion protection for gratings)

The term "hot dip galvanizing" means the adding of a zinc finish by dipping the pre-treated parts into a molten zinc dip. The zinc coat adheres firmly to surfaces. In case of normal mechanical demands such as transportation, pedestrian or vehicle traffic, zinc does not flake off or develop cracks.

The average weight of the zinc coating is approximately 450 g per sqm of treated surface. This corresponds to a coating thickness of approximately 65 µm. The thickness of the zinc coating also depends on the thickness of the material. Before galvanizing, parts are pre-treated to provide a mechanically clean surface in order to achieve a faultless adherence of zinc.

Bitumen dipping is often requested as an additional treatment for galvanized gratings, and gives extra surface protection (mainly for chemical use).

Plastic coatings are achieved, e.g. by dipping or electrostatic powder coating. The abrasion resistance and thickness of finish required, depends upon the application, so this need to be considered when deciding which procedure and plastic to use.

Painting

Gratings and perforated metal planks can likewise be lacquered in a dipping or spraying process, preferably after galvanizing.