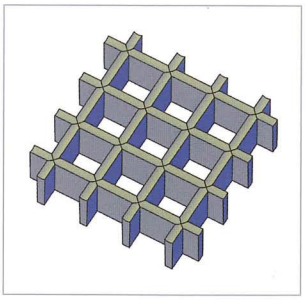
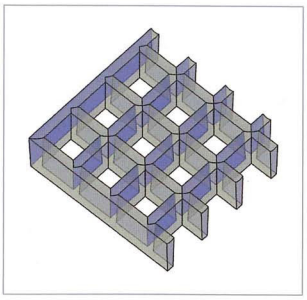
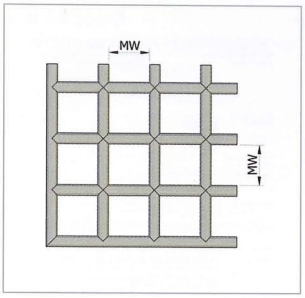
GRP Technical Terms



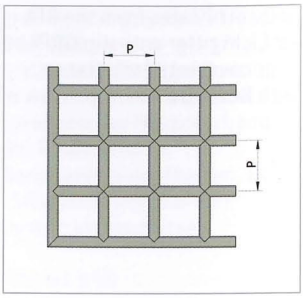
Supporting rods/crossbars
Moulded GRP gratings are constructed with supporting rods and crossbars of the same height. Only micro mesh GRP gratings have a different top mesh structure to the basic mesh structure (see panel dimensions detail page 17).



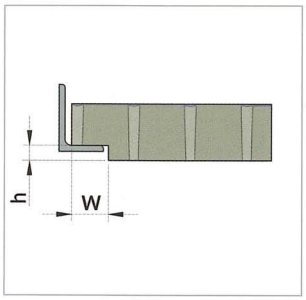
Open edges
GRP gratings whose external dimensions deviate from production dimensions might not have closed edges. Open edges are not included. The cut edges should be permanently sealed.



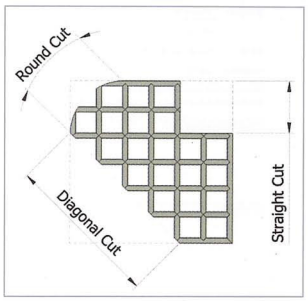
Mesh width
The clearance between supporting rods/crossbars.



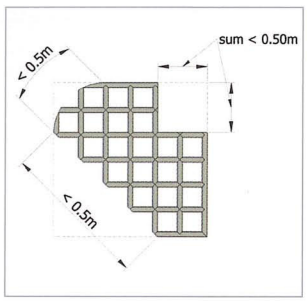
Pitch
The distance from one axis to the other axis of supporting rods/crossbars.



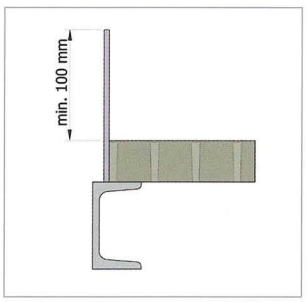
Recess areas
Recess areas are necessary in the contact area if it is necessary to be on the same level as the neighbouring floor covering. Individual structural analyses should be carried out.



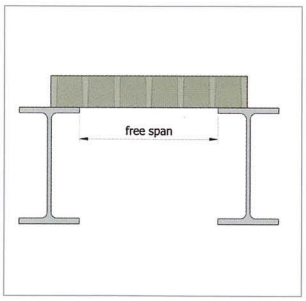
Cut-outs
Cut-outs are straight, diagonal and round cuts which deviate from the smallest possible surrounding rectangle or square. In contrast to steel gratings, these are not re-incorporated in accordance with DIN 24537-3.



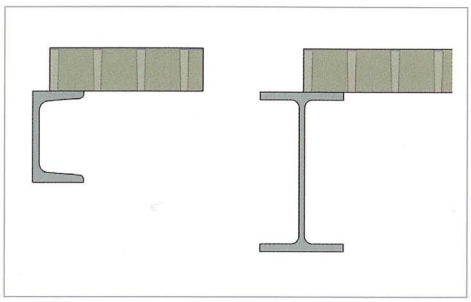
Small cuts
Small cuts are straight, diagonal and round cuts which are smaller than 0.5 running metres. These are calculated as allowances.



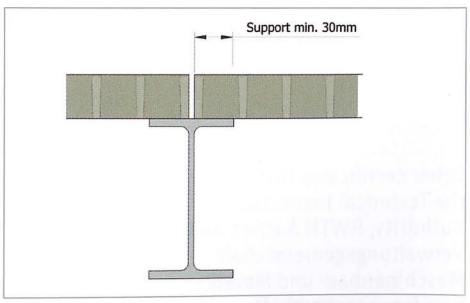
Kick plate
Flat material screwed onto the grating after construction which protrudes from the grating edge. It must be at least 100 mm higher than the grating surface.



Free span
The span is the clearance between two supports.

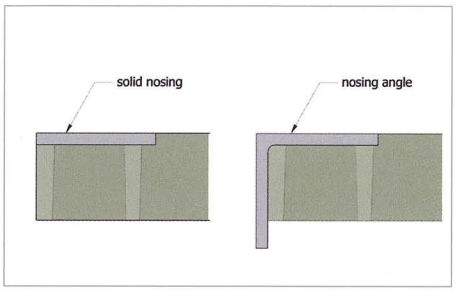


Substructure
A substructure is a structural component which a grating can be laid on.



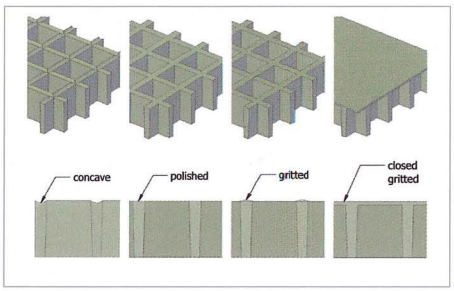
Support
The planned length of any support must be at least 30 mm. When in use, the support may not measure less than 25 mm. Deviations are permissible if structural measures ensure that the grating will not be displaced in the support direction.

GRP Technical Terms



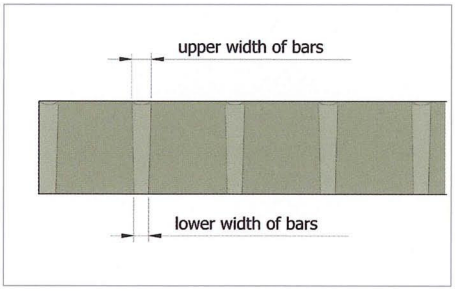
Black gritted solid nosing / nosing angle

We supply a closed black gritted plate in the entrance area to ensure that our stairtread gratings and platforms comply with DIN 24531-3. These can be constructed in the form of flat material or an angle depending upon structural requirements.



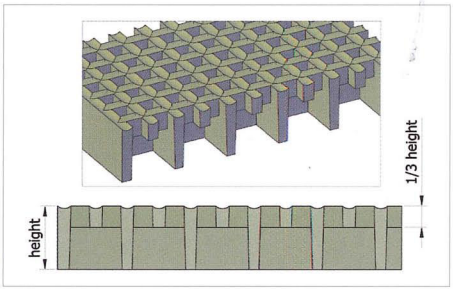
Surface/anti-slip

GRP gratings can be produced with a variety of surfaces (see page 34-35), including concave, smoothed, polished, gritted and solid surfaces. Our different surface structures have been put in different anti-slip quality classes according to BGR 181.



Bar width

To press the GRP gratings out of the moulds, the support rods/crossbars are conically tapered. This leads to the upper land width (So) being larger than the lower land width (Su), measuring between 6 and 7 mm for a standard grating.



Micro mesh

The upper third of the mesh structure deviates from the basic mesh structure.

Resin designs

GRP gratings have a particularly high resistance to chemicals and corrosive elements. Different resin designs are used according to order specifications. Our standard resins are orthophthalic, isophthalic and vinylester resins.

Cut to size

Straight cuts are sections of panel material.

Cut edges

Grating areas which deviate from storage dimensions are sawn out of the panels. The sawn sides are known as cut edges, which should be permanently sealed.

Corrosion resistance

GRP gratings are known for their high corrosion resistance. The medium, its concentration, temperature and the duration of exposure have a major influence on the resistance.

Moulded/monolithic

Moulded GRP gratings are produced in special moulds using a wet lamination procedure. The glass fibres are woven together, while the resin , additives and colour pigment if required are introduced in liquid form. After the material hardens, the GRP gratings are pressed out of the mould.

Pultruded

Pultrusion is a continuous profile production process. The term comes from the word “to pull”. The glass fibre roving is immersed in resin and pulled through a mould.

DIN 24537-3

DIN 24537-3 – Gratings used as flooring – plastic gratings – contains information about the intended purpose and properties for the use of GRP gratings in flooring.