Material and Quality Description of Quartzite

This quality description aims to define when irregularities in quartzite natural stone can be considered valid grounds for a complaint and when they are a natural part of the stone's character.

Quartzite exhibits natural variations in patterns and colour.
Small samples, often shown to customers, do not always provide an accurate representation of the finished worktop.

The purpose of this description is therefore to align expectations for this type of stone.

Differences between Quartzite and Granite

The fundamental difference between quartzite and granite lies in their formation and mineral composition. Both stones contain many of the same minerals, but the distribution determines the type and properties. For a stone to be classified as quartzite, its quartz content must be at least 80 %. Some types of quartzite, such as Taj Mahal and J'adore, consist almost entirely of quartz, while Belvedere contains approx. 80 % quartz and 15 % mica crystals, such as biotite and muscovite. The remainder consists of feldspar and other minerals.

Quartzite is a metamorphic rock, formed when sandstone over millions of years is exposed to high pressure and temperature, transforming it into a hard, quartz-rich stone.

Granite, on the other hand, is an igneous rock, formed when magma cools and solidifies. Quartz content in granite is typically below 60 % with feldspar dominating. Since quartz has a hardness of 7 on the Mohs scale, while feldspar has a hardness of 6, granite is generally less scratch-resistant than quartzite.

Colours and Patterns

Colours

A quartzite worktop can have one or more base colours, but these can vary significantly from batch to batch and even within the same slab.

Especially at joints between multiple slabs, visual differences may occur, where the slabs do not appear completely matching.
This is due to the natural variations in quartzite and is therefore not considered a valid reason for a claim.

See examples on our website:
www.dfi-geisler.com/natursten-sortiment

The two images show different areas of the same slab, where the colour tones vary from yellowish to reddish.

The images show two different slabs of the same stone type, where the pattern direction varies between horizontal and vertical.

Patterns

Quartzite worktops can have repeating patterns in colour and veining. These patterns vary naturally and are not necessarily directionally consistent.

Variations in patterns are a natural characteristic of the stone and are not considered a valid reason for a claim.

Example of a joint between two worktops where the veining and pattern do not appear visually matching.

Veins

Vein Patterns

Many types of quartzite derive their appearance from the veins present in the stone.
The intensity and extent of vein patterns can vary significantly – from strong and high-contrast patterns to a calmer and more uniform appearance.

Variations in vein patterns are a natural characteristic of quartzite and are therefore not considered a defect.

The images show two different slabs of the same stone type.

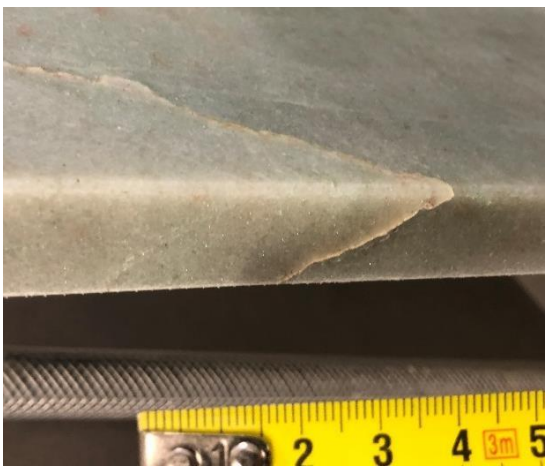
Glass Veins

Some veins can visually resemble fine cracks and may be mistaken for breaks in the slab. These so-called glass veins are naturally occurring mineral veins and do not negatively affect the strength or durability of the stone.

Because glass veins consist of minerals with a different structure than the surrounding stone, they may in some cases feel slightly raised to the touch or react differently to polishing.

This is a natural material variation and not a defect.

This image shows a minor glass vein, which may visually be mistaken for a crack.



This image shows a vein, which may visually be mistaken for a crack.

Surface Finish

Polishing

Quartzite consist of minerals with varying degrees of hardness. As these minerals respond differently to polishing, minor variations in surface texture may occur.

The surface may feel very smooth in some areas and slightly textured in others. Differences in light reflection across the surface may also occur – even when the polishing grade is consistent.

The same applies to edge profiles, which in some cases are polished by hand.

These differences are a natural feature of the stone mineral composition and are therefore not considered a valid reason for a claim.

Visible scratches caused by damage or improper polishing, which clearly do not follow the stone's natural structure or veining, are treated as a matter for complaint.

The image shows differences in reflection resulting from variations in mineral composition. These differences can be both seen and felt.

Filling

Minor indentations or natural fissures may be filled as a part of the fabrication process. This may involve a localised repair or result from the resin treatment commonly applied to slabs by the supplier prior to polish.

Fillings are a standard part of the processing of natural stone and are therefore not considered a defect or deficiency.

The matt, uniform area shown in the image is a resin filling.

Backing Mesh

Mesh on the Back

Quartzite slabs are equipped with mesh on the underside. The mesh helps stabilise the worktop during handling and fabrication.

Even on worktops with a profiled edge, the mesh may in some cases be visible all the way to the bevel.

Visible mesh is a stabilising and protective measure and is therefore not sonsidered a defect or deficiency.

The mesh can be ground away up to 100 mm from the front edge at an additional cost. This must be specified when ordering.

The image shows the underside of a slab, where the mesh extends all the way to the front edge.

Surface Variations

Pits

During the polishing of natural stone, small depressions or pits may appear on the surface. These often occur along natural veins and fissures.

In the finished worktop, pits with a diameter of up to 2 $mm^{2.}$ are acceptable. A maximum of 5 pits of up to 2 mm^2 per m^2 is allowed.

Pits larger than 2 mm^2 are considered valid grounds for a claim and can usually be repaired by a qualified professional.

The image shows a depression running along a natural vein.

Minor depressions may also occur along polished edges and can be felt when touched.

Surface Variations

Fissures

Fissures on the surface or along the edge of the worktop may occur naturally. For the purpose of this description, a fissure is defined as a natural opening or gap in the stone that does not extend through the full thickness of the slab.

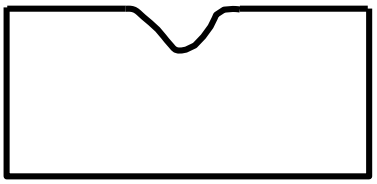
These fissures are a natural variation that occurs in areas with different mineral composition and do not weaken the slab.

Fissures often follow visible veins and have soft, rounded edges, as they are polished together with the rest of the surface.

Fissures measuring less than 2 mm at their widest point are not considered a valid reason for a claim.

The image shows a fissure running along a natural vein.

Characteristics of Natural Fissures



- Flat surface
- Rounded edges
- Not through the full thickness
- Follow visible veins

Surface Variations

Cracks

A crack is defined as:

- A continuous break in the thickness of the stone
- Separation of the material along the fracture surface

Both criteria must be met for a crack to be treated as a valid reason for a claim.

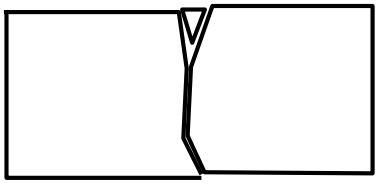
Cracks may follow the vein pattern or run across it and typically occur as a result of transport damage, handling, impact, or internal stresses within the stone. They are often seen in areas of high stress, for example around sink and hob cut-outs, but can also occur elsewhere during fabrication or handling.

Cracks that meet the above criteria are treated as valid claims.

Close-up of a leading edge and the underside of the worktop, showing a through-crack with a visible gap between the fracture surfaces.

An exampel of a through-crack with a clearly visible gap between the fracture surfaces.

Characteristics of Claimable Cracks



- Through the full thickness of the slab
- Visible gap between fracture surfaces