

Material and quality description of quartzite

This quality description is an attempt to define when irregularities in quartzite natural stone are grounds for complaint or are simply part of the natural character of natural stone.

Large variations occur naturally in quartzite.

The hand samples shown to end customers for these stone types do not necessarily give an accurate picture of the appearance of the finished countertop.

Hence this description, to better match expectations for this type of stone.

Differences between quartzite and granite

The fundamental difference between granite and quartzite is the way they are formed and the mineral composition. Many of the same minerals are found in the stones, but it is the distribution that determines the type and properties.

For a stone to be classified as a quartzite, the quartz content must be at least 80%. Quartzite stones, such as Taj Mahal and J'adore, consist of close to 100% quartz, while Belvedere, for example, consists of 80% quartz and 15% mica crystals such as biotite and muscovite. The rest is minerals like feldspar.

Quartzite is a "metamorphic" rock, which means that it is a sandstone that has been compressed over many millions of years and has changed state to the hard quartzite rock type.

Granite occurs as a "magmatic" rock, which means it started as liquid rock (magma) that has solidified. In addition, the quartz content of granite rarely exceeds 60% and is dominated by feldspar. Feldspar has a hardness of 6 on the Mohs scale, whereas quartz has a hardness of 7. Therefore, granite is not as scratch resistant as quartzite, as the quartz content is lower in granite.

Colours and patterns

Colours

Although a quartzite can have one or more basic colours, these can vary greatly from batch to batch and even across a single slab.

This can be particularly problematic when joining several slabs, as the customer may end up with a collection of slabs that do not visually "match".

This occurs naturally and is not something we can control. Therefore, it is not grounds for a complaint.

See examples on the website:

www.dfi-geisler.com/en/natursten-sortiment/



The two pictures are taken in different places on the same raw slab. Yellowish colour and reddish colour.

Patterns

Quartzite slabs can be characterized by having repeating patterns in colours and veins. These patterns can also vary and are not directional.

This occurs naturally. Therefore not grounds for a complaint.



These images are two different slabs of the same type of stone. "Horizontal" pattern and "vertical" pattern



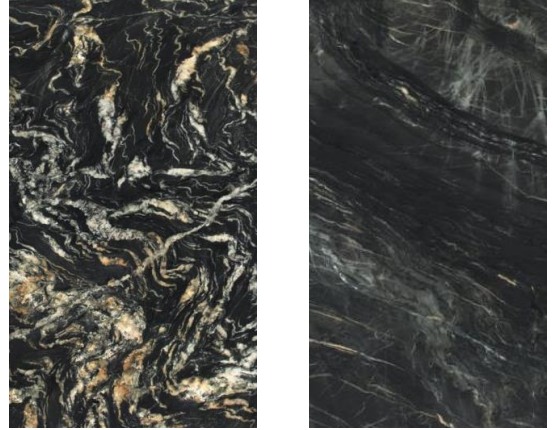
Example of a joint between two slabs, where the grain patterns do not "match" visually.

Veins

Vein pattern

Many quartzites take their characteristic appearance from the vein patterns found in the stone. These too can vary greatly, from being very intense to being almost absent.

This occurs naturally and is not something we can control. Therefore not grounds for a complaint.



These images are two different slabs of the same type of stone

Glass veins

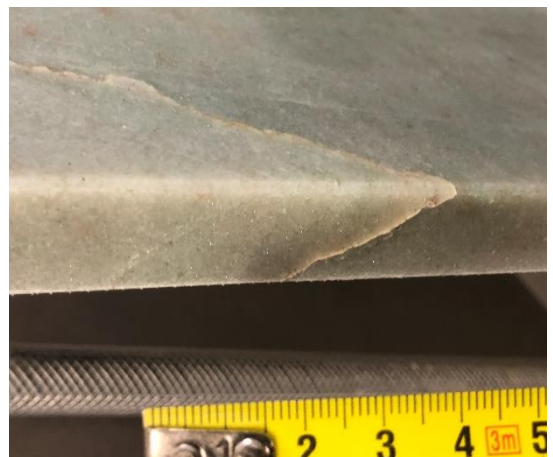
Some veins may look visually wrong and be mistaken for cracks in the slab. These glass veins do not weaken the stone and are a natural part of the slab.

In some cases, glass veins can be felt with the fingers as they are of a different type of mineral which reacts differently to polishing.

This must be accepted by the customer



Here you can see a small glass vein which could be mistaken for a crack.



Here is a vein that could be mistaken for a crack.

Surface finish

Polishing

Quartzite has different minerals in the surface that have different degrees of hardness. They therefore react differently to being polished. There may be small structural differences in the surface that can be felt.

If your hand is run over the surface, a slight difference in polish can be felt. From smooth to rougher.

The difference in reflection can also be seen by shining a light along the surface. Even though it's the same polishing.

The same applies to leading edges, which are sometimes hand polished.

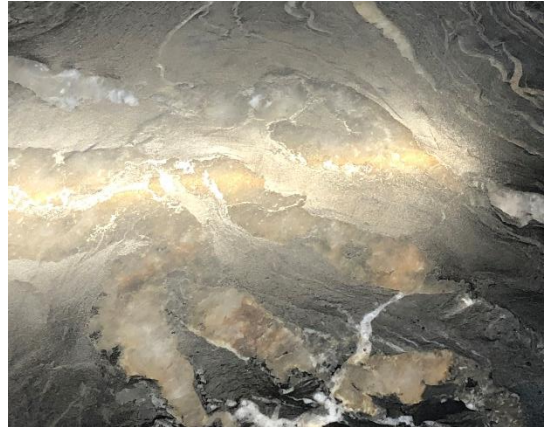
This occurs naturally. Therefore not grounds for a complaint.

Obvious scratches caused by damage or imperfect polishing and which clearly do not follow structures and veins are treated as grounds for complaint

Surface-filling

Some indentations or fissures may have been surface-filled as a repair or as a result of the synthetic resin coating applied before polishing at the stone supplier.

These must be accepted by the customer.



Here you can see the difference in reflection due to different minerals – This difference can also be felt.



The mat monochrome spot is a resin surface-filler



The matte black crack is a sparkle of a glass vein filled with dark resin.

Surface finish

Mesh on rear side

Quartzite has mesh on the rear/bottom of the slab.

Although there is a leading edge with bevel on the top and bottom, the mesh can go all the way to the bevel.

This must be accepted by the customer.



This is the underside of a slab, where the mesh goes all the way to the edge

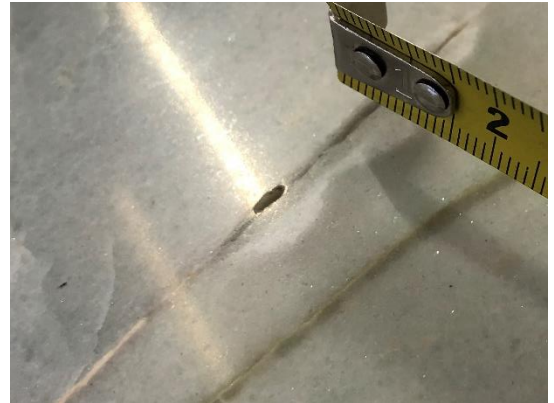
Indentations and holes

Holes

Small indentations or holes may appear in the surface when natural stone is polished. These are usually found in natural veins and fissures.

Holes up to a maximum diameter of 2 mm² are acceptable in the finished slab. A maximum of 5 holes of max. 2 mm² per m² is acceptable.

Holes larger than 2 mm² are grounds for a complaint, and can usually be repaired by a trained professional.



This is an indentation running along a natural vein.



Small indentations often appear in the material on polished leading edges. These can also be felt.

Indentations and holes

Fissures

A fissure in the surface or on the front edge of the countertop may occur naturally and must be accepted by the customer. A fissure in this context is defined as a "gap" in the stone that is not continuous throughout the thickness of the stone.

This is a naturally occurring variation and not something that has arisen by accident. They also do not weaken the slab.

A fissure usually runs along a visible vein in the stone, as this is usually where there is a difference in the mineral composition.

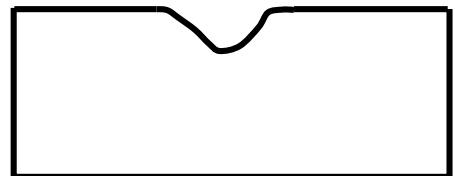
A fissure also has soft edges and is level with the surface because it has been polished over.

If the fissure is less than 2 mm at the widest point, this is not grounds for a complaint.



This is an indentation running along a natural vein.

Fissure



- ☐ Even surface
- ☐ Rounded edges
- ☐ Not all the way through
- ☐ Runs along a visible vein

Indentations and holes

Cracks

A crack in this context is defined as:

- A continuous break in the thickness of the stone.
- That the material has broken apart.

These two conditions must be present for it to be handled as a crack that is grounds for complaint.

A crack can run along a vein or across veins, as this has occurred due to transport damage, handling, impact or stress.

These also usually occur where there are many stresses in the stone, such as at sink and hob cuttings, where they are frequent. But they can also occur in other places during handling.

Cracks are handled as complaint cases.

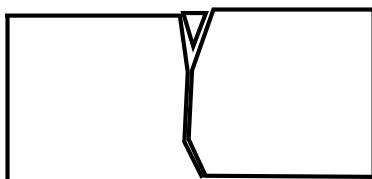


This is a close-up image of a leading edge. Note that there are gaps in the crack and that it is continuous through the thickness of the slab.



Another example of a continuous crack with gap. This is a very clear example

Crack



- ☐ Continuous
- ☐ Gap in the crack