

HanStone Veined Materials

The purpose of this bulletin is to provide clear directions with respect to the natural characteristics of HanStone materials with veined patterns. Care must be taken to properly lay-out the job to ensure end user satisfaction. It is also imperative that the end consumer be made aware that the natural variation characteristics of the veined product will be noticeable on either side of a seam. These materials will also have a visible vein direction, just as some marbles and granites do. The directionality of the vein is more apparent in some materials, and less apparent in others.

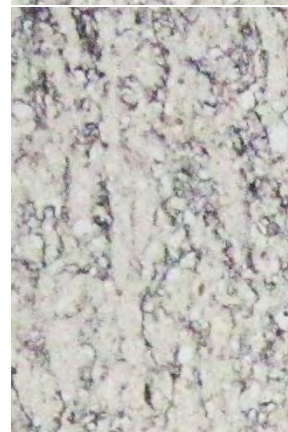
Seaming Do's and Don'ts

- Avoid placing a seam cut at the edges of the slab.
- Pay close attention to vein direction and pattern during layout
- Inform the end consumer that the vein and pattern will not match at seams. To mitigate this effect, the following may be required;
 - Purchase of additional slabs and resulting lower usable yield in order to match vein direction.
 - Placement of additional seams in the countertop. This *must* be discussed with the consumer as additional seams may be more objectionable than the vein direction.
 - 45 degree mitered seams in corners. This is not recommended but can be properly executed with additional seam support.

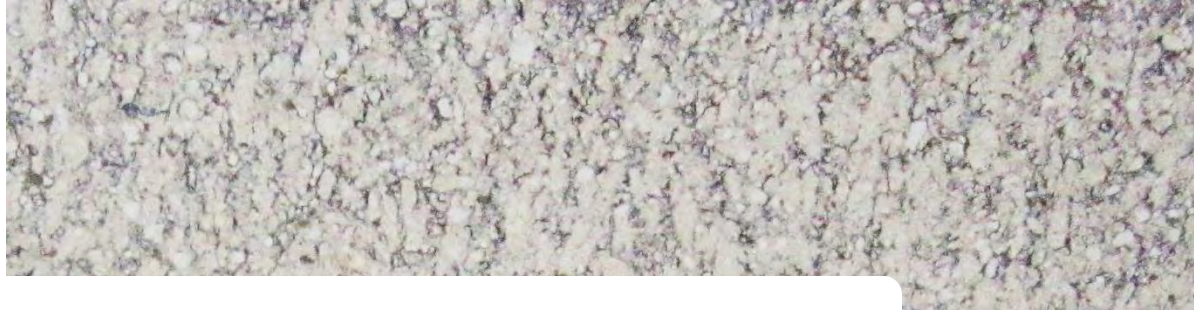
Below is a typical top layout with vein direction aligned (seam location is shown in white):



It must be noted that the vein pattern in the material will not match across a seam even though the vein direction is moving in the same direction. Variations in the vein and pattern is likely to be more noticeable at the seam between two pieces, even though similar variations occur throughout the slab.



Here is a similar layout with the vein pattern in 2 different directions:



This layout shows that, even though the direction of the vein pattern does not match from piece to piece, the look of the two pieces across the seam may be more acceptable than when the vein direction does match (as shown in the previous example).

Vein patterns and markings are random and unique in each slab. No two slabs will have identical or matching vein patterns. This random affect is intended and adds to the unique individual character of each slab.



Below is a 45 degree miter with vein direction change:



In this type of layout additional seam support will be required at the midpoint of the seam. The seam will end up being 1/3 longer than a normal 2' seam across the width of the countertop and the waste factor will be much higher for this type of seam (approx. 4 sq. ft. for each 45 degree mitered corner).



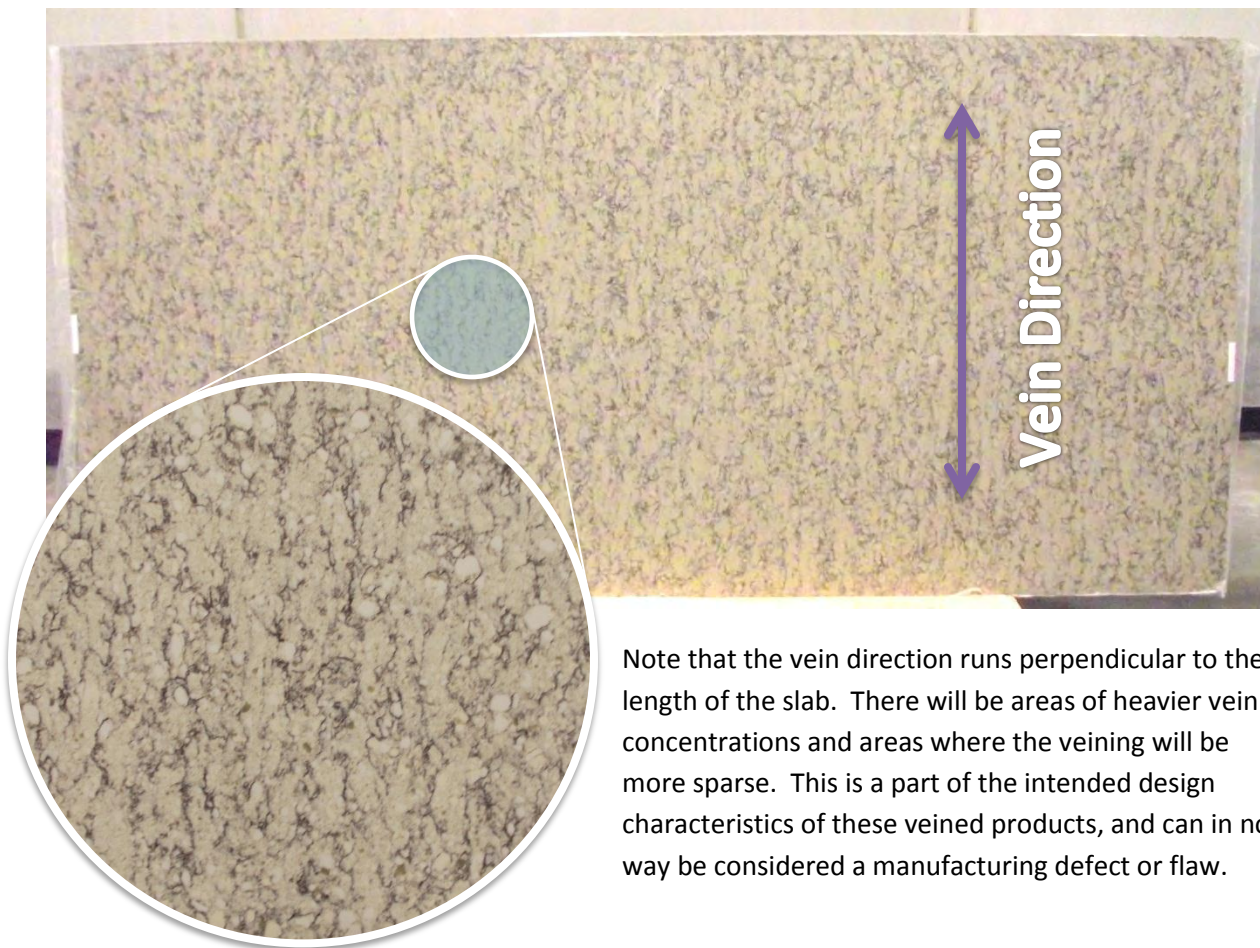
Seam Appearance

In any type of veined material – marble, granite, or quartz – there will be visible pattern differences at the seam. HanStone veined materials are no different. Background color will match but the seam will be visible, and vein patterns will be noticeably interrupted. This is normal and to be expected in this type of material. At the right is a close up detail photo of a typical seam showing how the pattern is noticeably different from one side of the seam to the other.



Vein Direction

Below is a photo of a full slab of Sabbia (120" x 55"). In the photo you can see the random veining and pattern characteristics inherent in this material. Sabbia has been chosen for this bulletin because the vein pattern shows up best in photographs. Be advised that the material covered here applies as well to all other HanStone veined patterns.

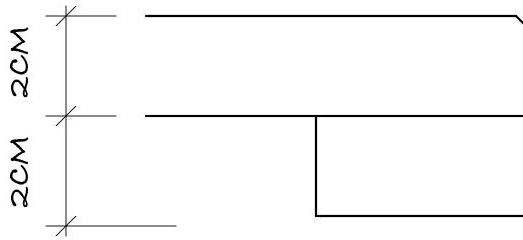


Note that the vein direction runs perpendicular to the length of the slab. There will be areas of heavier vein concentrations and areas where the veining will be more sparse. This is a part of the intended design characteristics of these veined products, and can in no way be considered a manufacturing defect or flaw.

When fabricating veined materials care should be taken during layout to provide the best combination of material yield and aesthetics. Always err on the side of customer satisfaction.

Edges and Laminations

The random vein pattern will carry over to the edge of the material. The edge may have a different vein pattern and direction from the top or face of the material. Once again, this is a normal and expected characteristic. The background color will not change throughout the thickness of the material and will remain consistent. The veining pattern at the edge may be more noticeable when using 2cm material with a 4cm edge lamination. The line at the edge lamination will be visible similar to a seam in the top.



LAMINATED EDGE

Recap

- Care must be taken to properly lay-out the job to ensure end user satisfaction.
- Avoid placing a seam cut at the edges of the slab.
- Inform the end consumer that vein and pattern will not match at the seams.
- **No two slabs will have identical or matching vein patterns. This random affect is intended and adds to the unique individual character of each slab. Communicate this to the end user.**
- Vein patterns within the slab can be directional.
- There will be areas of heavier vein concentrations and areas where the veining will be more sparse.
- The veining pattern at the edge may be different, as well as more noticeable – especially with a laminated edge.
- When in doubt, always err on the side of customer satisfaction.

Hyundai L&C USA has developed these guidelines in order to produce the best results possible. Failure to follow these guidelines, and any resulting customer dissatisfaction, will become the sole responsibility of the fabricator.