

Quartered Veneers: What is Ray Fleck/Flake?

Quarter sawn veneer is produced when the log is first quartered lengthwise, resulting in wedges with a right angle ending at the approximate center of the log. Each quarter is then cut separately by tipping it up on its point and sawing boards successively along the axis. This results in boards with a highly sought straight, striped, or lined grain pattern that can be very pleasing.

As desirable as this look is, there is something to keep in mind when ordering quarter cut veneers. **Ray fleck (aka “flake”)** is a quality unique to quarter sawn oak, due to its tight grain structure. This occurs naturally from the tree’s medullary rays, which emanate outward from the center of the tree like spokes of a wheel. These rays are woven through the tree’s vertical graining, and when quarter sliced, creates the ray fleck appearance because the veneer is being cut parallel with these medullary rays.

When sanding quarter sliced oak veneers, the areas where the cross layers of ray flecks are very thin may lift out from the veneer. Areas that do not lift out while sanding can appear loose or rough after finishing.

These random ray fleck patterns, as well as areas where thin cross layers of veneer lift out of the veneer face, are typical of doors ordered with quartered oak veneers. Both AWI and WDMA standards allow unlimited quantities of ray fleck, and it is not considered a defect.

If you are looking for a beautifully uniformed, striped visual look much like quarter sawn veneers, we encourage you to consider Rift Cut. This method is slightly more costly, as there is more waste generated during the cutting process, but it will eliminate the occurrence of ray fleck/flake while still dimensionally stable and visually pleasing.



Examples of ray fleck/flake occurring on Quarter Cut Oak veneer, above.

Examples of comparable Rift Cut Oak veneer, below.

