



Technical Bulletin
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Haze in Low E Glass

“Haze” is the scattering of light rays when visible light passes through a transparent material. All transparent materials have haze. The amount of haze in ordinary glass is very small and, essentially, is not detected by the human eye. Haze will be visible in Low E glass.

Haze in Low E glass is generally seen only when direct sunlight is on the glass. If the glass is partially in direct sunlight and partially in shadow, the haze will be quite obvious on the sunlit portion of the glass. Haze usually has the appearance of a blue-gray “smoke” film on the glass. Homeowners often complain that the glass is “dirty” and can’t be cleaned. However, haze is a characteristic of Low E coatings, and cannot be avoided.

All Low E glass products use “interference” coatings to mask the color and reflectivity of the metallic coatings that give Low E glass its unique performance. These “interference” coatings tend to increase the level of haze in the glass. Vacuum coated Low E glass products (such as PPG Solarban 60) generally have a very low amount of haze . . . often not much more than clear float glass. Pyrolytic coatings (such as Pilkington Energy Advantage Low E or PPG Sungate 500) tend to have higher levels of haze that can easily be seen by the human eye.

Vitro America recommends that our customers discuss haze with their clients before installing Low E glass. The benefits of Low E glass will usually outweigh the disadvantage of haze; however, the end user needs to know all of these factors in order to make an informed decision.