



**Technical Bulletin
Rev. 2/16/07**

Sandblasted Glass

Architects often specify sandblasted glass to achieve translucence while maintaining the color of the adjacent vision glass. Job sized lites of sandblasted glass often look different than the small samples used for architectural approval. As always, a job-sized mock-up is recommended. Before specifying sandblasted glass, architects need to consider the following limitations of sandblasted glass:

Appearance

Sandblasting is a manual process. No two lites of sandblasted glass will have the same appearance, and blasting marks will be visible within each lite of glass, creating a non-uniform appearance. After sandblasting, the glass is very porous and will collect dirt and oils that will be difficult or impossible to remove from the sandblasted side. This is especially critical for insulating units with sandblasted glass and for sandblasted glass that is subsequently tempered. A uniform, blemish-free appearance is seldom possible with sandblasted glass, and should not be expected. Monolithic sandblasted glass will have the sandblasted side exposed. This will present special long-term maintenance problems.

Structural Characteristics

Sandblasted glass is much weaker than the base glass it was made from. The Uniform Building Code requires using an adjustment factor of 0.40 (a 60% reduction in strength) when using sandblasted glass. Glass that has been “carved” by sandblasting may even be weaker than this! Sandblasted glass should be used in limited sizes and it may need to be tempered to withstand the required windload. Tinted glass should be Fully Tempered or Heat Strengthened to avoid thermal stress breakage.



Acid Etched Glass

Vitro America will no longer supply sandblasted clear glass because of the problems noted above. Instead, acid-etched float glass will be supplied for all clear glass applications. The acid-etched surface will have a more satin appearance and be more uniform than sandblasted glass. Even though acid-etched glass is more uniform than sandblasted glass, irregularities and flaws may be visible in this glass. The surface will be less susceptible to dirt and oils. Long-term maintenance will present fewer problems than sandblasted glass. However, if dry-wall mud or concrete splatter are allowed to dry on the acid-etched surface, the surface will be permanently blemished. Cleaning acid-etched glass with cerium oxide will change the “tooth” of the surface. To get a uniform appearance, the acid-etched glass will require the entire surface be buffed with cerium oxide. This will be an expensive and time-consuming process.

Tinted Glass

Since acid-etched glass is available only with a clear substrate, tinted glass will still have to be sandblasted. Be sure the architect and building owner understand all of the issues surrounding sandblasted glass surfaces. Due to the substantial weakening of the glass surface, tinted sandblasted glass is very likely to experience thermal stress breakage unless it is Fully Tempered or Heat Strengthened.

