



Clarity Glass Wholesalers Standard Guidelines and Tolerances *Tempered Glass and Other Flat Glass*

Clarity Glass Wholesalers follows the industry standards that are set by ASTM International. ASTM International, formerly known as the American Society for Testing and Materials (ASTM), is a globally recognized leader in the development and delivery of international voluntary consensus standards. Today, some 12,000 ASTM standards are used around the world to improve product quality, enhance safety, facilitate market access and trade, and build consumer confidence.

ASTM's leadership in international standards development is driven by the contributions of its members: more than 30,000 of the world's top technical experts and business professionals representing 150 countries. Working in an open and transparent process and using ASTM's advanced electronic infrastructure, ASTM members deliver the test methods, specifications, guides, and practices that support industries and governments worldwide.

Inspection Guidelines

Industry standards (as prescribed by ASTM) clearly specify that glass is to be visually inspected from a distance of 10 ft. (3m) and at a viewing angle of 90 degrees to the said glass product, which has been placed against a bright and uniformly colored opaque background and viewed in a natural daylight setting. Once this criterion is in place, standards for acceptability with respect to flat tempered/annealed glass are as follows:

Measurements

Glass measuring within 1/8" (+/-) of customer-provided measurements is to be deemed accurate and acceptable per industry standards, covering all glass thicknesses and types.

Bubbles

Per ASTM 1172 Table 1, if there should appear an air bubble or other such impurity that is readily apparent, then the following criteria applies in determining acceptability: Air bubbles larger than 1/4" (6mm) in diameter are not allowed in any part of the glass area. Blow in or short interlayer larger than 1/4" (6mm) is not allowed, unless the glass is captured by more than 1/4" (6mm).

Blemishes

Per ASTM 1172 Table 1, blemishes up to 1/32" (1.0mm) are allowed unless there is blemish accumulation. In 80 percent of the central glass area, up to three blemishes no larger than 3/16" (5mm) per 10 sqft (1.0m²) are allowed, unless there is blemish accumulation. In the outer 20 percent, up to four blemishes no larger than 3/16" (5mm) per 10sqft (1.0m²) are allowed. Blemish accumulation happens when more than ten blemishes are located within a circle no larger than 8" (200mm) in diameter.

Edges and Chips

Chips on the edges are allowed when the edges will be captured (i.e., set in metal channel) and the chips are not visible through the glass surface once the glass is installed. When the edges are not captured, one chip per every 3 feet (1.0m) measuring less than 3/8" (10mm) in length and 1/16" (2mm) in width is allowed if it is not visible through the glass surface.

Scratches

Per ASTM 1036, all glass products are to be inspected from a distance of 10 ft. (3m). Visible scratches of up to 2" (50mm) in length, visible from this distance, are allowed in the internal 80 percent of the glass area, and scratches of up to 3" (75mm) in length are allowed in the outer 20 percent of the glass area. Concentrated scratches or abraded areas are not allowed. Any scratch that is not visible from 10 ft. (3m), even if larger than the mentioned sizes, will not be cause for rejection.

Clarity Glass Wholesalers seeks to always provide a superior product that meets industry standards.