

TECHNICAL BULLETIN

Heat-Strengthened Glass

Virginia Glass Products Corporation offers ¼" ceramic enamel frit spandrel glass, and vision glass for insulating glass units, as either heat-strengthened or fully tempered. Both products offer increased resistance over annealed glass to thermal stresses, wind loading, and severe shading conditions which may exist on some installations. For usual applications of heat-treated spandrel, the glass will be provided as heat-strengthened, unless specified as fully tempered in order to withstand high thermal or loading stresses, or where safety glazing codes are applicable. While breakage of heat-treated glass is infrequent, and is usually the result of departures from recommended design and glazing practices, the user of spandrel glass materials should be aware of the more obvious differences in heat-strengthened and tempered glasses.

Heat-Strengthened Glass by Virginia Glass Products:

- Approximately twice as strong as annealed glass of the same thickness.
- Typically will break into relatively large fragments that may tend to remain in the framing.
- Is less prone to spontaneous breakage from certain impurities which can occur as inclusions in the raw glass-making process.
- Is NOT A SAFETY GLAZING PRODUCT as designated by ANSI Z97.1 or the Consumer Product Safety Commission.
- Meets requirements for heat-strengthened glass as defined by the ASTM specification C 1048 and Glass Association of North America.

Tempar-Glas® (fully tempered) Glass by Virginia Glass Products:

- Three to 5 times stronger than annealed glass of the same thickness.
- Typically will break into innumerable, relatively small pieces thereby reducing the likelihood of serious injury.
- Can experience occasional spontaneous breakage if inclusions are present in the raw glass.
- IS A SAFETY GLAZING PRODUCT complying with ANSI Z97.1 and CPSC 16CFR 1201.
- Meets requirements of fully tempered glass as defined by the ASTM specification C 1048 and Glass Association of North America.

Virginia Glass Products Corporation recommends that monolithic spandrel glass panels should be furnished with applied fallout-resistant tape strips on heat-strengthened panels, and full surface fall-out resistant tape backing on fully tempered spandrel panels, especially where there is the likelihood of personal injury from falling glass. Spandrel with this backing will meet the fall-out resistance specification set forth in the ASTM specification C 1048.

VGP recommends that those using and/or ordering spandrel glass should become familiar with the characteristics of, and differences between heat-strengthened and fully tempered glass. Your choice should be clearly stipulated on your purchase order. If you require additional information on these products and their characteristics, please contact us.

LIMITED WARRANTY

The nature of heat-strengthened and tempered glass is such that despite careful processing by the Company, the glass may, on occasion, break after installation without apparent reason. This may be the result of certain impurities in the glass received by the Company, scratching during installation, improper glazing or maintenance, or an impact by foreign object. Because this breakage may be the result of circumstances over which the Company has no control, THE COMPANY DOES NOT WARRANT AGAINST GLASS BREAKAGE. WE MAKE NO WARRANTY OF MERCHANTABILITY, NO WARRANTY THAT THE MATERIAL IS FIT FOR ANY PARTICULAR PURPOSE OR USE AND NO OTHER WARRANTY, EXPRESSED OR IMPLIED, with the exception that the products are warranted to conform with the applicable specifications as stated in our Terms and Conditions of Sale. The Company shall not be liable for the cost of removal or installation of, or any incidental, consequential or other damages in connection with such material.