

Fabrication of Heat Treated Glass

Vitro (formerly PPG Industries) has historically recommended that heat treated glass, whether it be heat strengthened or tempered, not be further fabricated after heat treatment. This recommendation is supported by ASTM C1048 (Standard Specification for Heat Treated Flat Glass), the FGMA Glazing Manual, and the GTA Engineering Standards Manual.

Vitro TD-125 Sandblasting of Tempered Glass, formerly Inside Glass TSR 95-1, provides Vitro's position that the strength of tempered glass that has been sandblasted after tempering will be substantially less than identical glass that is sandblasted before tempering. Similar strength reductions would be expected in tempered and heat strengthened glass that has been subjected to other types of fabrication - such as etching, edging, or V-grooving - after the glass has been heat treated.

While cutting, notching, and drilling are fabrication operations that obviously cannot be performed on tempered or heat strengthened glass, there are other fabrication operations that are also not recommended by Vitro after the glass is heat strengthened or tempered. These operations include, but are not limited to, grinding, edging, etching, sandblasting, and V-grooving. These types of glass fabrication, performed after heat strengthening or tempering significantly decrease the ability of the glass to resist both applied mechanical and thermal stresses which occur in-service when compared to similarly fabricated glass that has been heat treated after

fabrication. In addition, fabrication operations performed after the glass has been heat treated may negatively affect performance in safety glazing and other applications by altering the break pattern, impact resistance, frequency of breakage, and expected in-service performance of the glass.

Vitro once again reiterates its long standing recommendation that heat strengthened or tempered glass should not be subjected to further fabrication.

Accordingly, applicable warranties for glass tempered by Vitro under its tradenames of Herculite® and Herculite® K will be considered null and void in the event that any further fabrication is performed on the glass.

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HISTORY TABLE		
ITEM	DATE	DESCRIPTION
Inside Glass 96-1	2/15/1996	Fabrication of Heat Treated Glass
TD-124	5/8/2002	Transferred to Internet – minor changes
Revision 1	2016-10-04	Updated to Vitro Logo and format

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