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PRODUCT DATA SHEET

G-1013 GLASS TRANSFER TAPE

General Information

The G-1013 Glass Transfer Tape is designed for glazing and sealing metals (ie. stainless steel), ceramics, crystalline (natural) quartz and other materials with approximately a 95 x 10^7 coefficient of expansion. It can be used for glazing purposes either as a vitreous or devitrified opaque glaze, and for sealing purposes as a devitrified glaze.

Glazing

The low firing temperature of G-1013 Glass Transfer Tape makes it suitable for protective glazing of metals and replaces the organic finishing techniques used for lack of low temperature glass coatings. The low firing temperature preserves the base metal's integrity and, at the same time, produces a finish superior in quality and performance.

Sealing

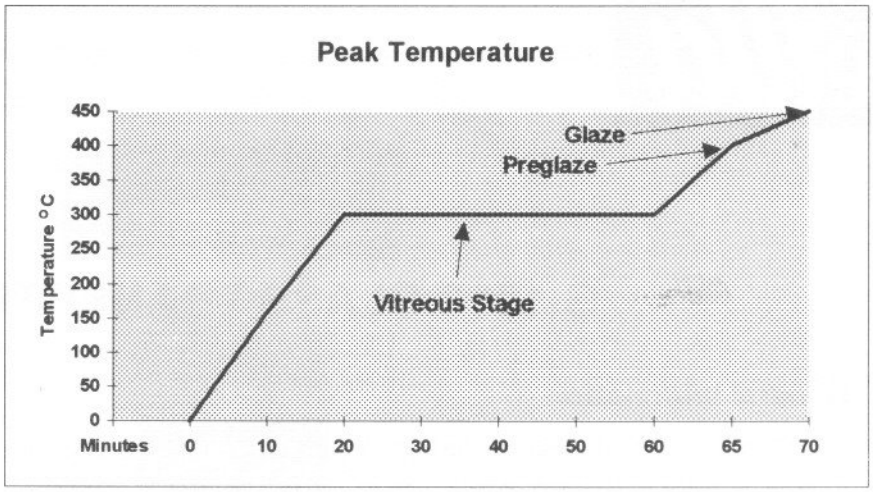
G-1013 Glass Transfer Tape permits sealing together metals or a combination of metals and ceramics with similar thermal expansion coefficients. The sealing operation should be started with a preglazing step (vitreous stage), next, the preglazed parts should be sealed together in a second step (devitrified stage).

Physical Properties of G-1013

Glass Family	Lead Zinc Borosilicate
Glass Type	Devitrifying
Color of Fired Seal	Gray
Density	6.50 gm/ml
Softening Point	385°
Dielectric Constant (devitrified)	1MHz, 20°C, 20K
Electric Resistivity, Ohm/cm	
log at 250°C	8.55
log at 350°C	7.03

Application Data

Glazing



If the G-1013 Glass Transfer Tape is used to produce a protective glaze, it may be used either as a vitreous or a devitrified glaze, depending on the requirements. In the first case, it should be heated up to the peak temperature of about 400°C as indicated in the curve, in the second case, it should be heated up to the sealing temperature of approximately 440 - 450°C and kept there for 5 - 30 minutes.

Sealing

If the G-1013 Glass Transfer Tape is used for sealing operations, it is very important that during the preglazing step, the glass layer should remain in the vitreous stage and not be devitrified. Therefore, the peak temperature of the preglazing step is slightly below the value recommended for the glazing step as indicated in the curve. The preglazed parts are sealed together in a second step during which devitrification takes place. During this step, the pieces are heated to approximately 440 - 450°C for 5 - 30 minutes.

The peak temperature of the preglazing curve as well as the exact sealing time and temperature depend on a number of factors such as the geometry of the surface, the thickness of the glaze layer, the method of sealing, etc. and have to be determined individually. The data given here are only approximate values.

Ordering Information

G-1013 Glass Transfer Tape is made to order. The minimum order is 500 square inches.

Due to its low working temperatures, it is not available with an adhesive backing. A .005" thickness is generally recommended for sealing and glazing. Maximum width available is 24". For larger production runs, preforms from G-1013 can be made to order. The tape is available slit to any width (.125" minimum).

Please call or fax for additional information and pricing.

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