

PRC® 469FM insulating glass sealant

Description

PRC® 469FM insulating glass sealant is a lead free, two-part Permapol® polymer-based compound specifically developed for sealing insulating glass units against moisture, cold, heat, and contamination.

Permapol® insulating glass sealant is a patented polymer which combines the elasticity, memory, and durability of two polymer systems. The improved properties inherent in this polymer system help assure long-term unit performance in the most difficult environments.

Use

PRC® 469FM insulating glass sealant is a low modulus sealant for sealing insulating glass units. Its rapid cure rate at elevated temperatures makes it suitable for use in plants utilizing curing rooms. Its low modulus, high strength properties make it ideal for use in either residential or commercial insulating glass units. In addition, the low MVT and superior water resistance properties mean it can be used in either single seal or dual seal constructions.

The sealant has outstanding resistance to weather, ozone, sunlight, heat, cold, and moisture.

The adhesive strength of PRC® 469FM insulating glass sealant is maintained even after long exposures to ultraviolet radiation, moisture, and vibrational stresses, as well as extremes in temperature.

PRC® 469FM insulating glass sealant is adaptable to most mixing, application, and curing conditions found in the insulating glass industry.

Applicable standards

Insulating glass units manufactured with PRC® 469FM insulating glass sealant meet or exceed the following specifications:

USA	ASTM E-774
Canada	CAN/CGSB 12.8

Limitations

PRC® 469FM insulating glass sealant is not intended for use in units manufactured for structural glazing applications. Insulating glass units made with PRC® 469FM insulating glass sealant should be fabricated and glazed in accordance with recognized industry standards. PRC® 469FM is intended for use in typical residential or commercial applications. Use of PRC® 469FM in units exposed to severe conditions, such as extreme heat or moisture,

should be reviewed by PRC-DeSoto International Technical Services. For specific recommendations, contact your local PRC-DeSoto International PRC® Insulating Glass Sealants salesrepresentative.

Permapol® insulating glass sealants are compounded to be compatible with many commercial glazing materials. Compatibility should however be verified through suppliers of products or through testing programs. Glazing materials such as sealants, tapes, gaskets, and setting blocks should meet recognized industry standards such as those published by FGMA, SIGMA, ASTM, or WDMA.

Technical data

Hardness, Rex A	
After 16 hrs RT	30-40
After 7 days RT	40-45
Peel strength to glass piw	
100% cohesive break, initial	20-30
After initial 30 days exposure to UV-moisture	20-25
Lap shear strength, 100% cohesive failure (glass to glass)	150 psi
MVT rate (SIGMA method)	19 g/m ² •24 hrs
Moisture vapor permeance (ASTM F1249)	0.38 metric perms
Film thickness	60 mils
Relative humidity difference	100%
Temperature	70°F
Color	Part A - Black Part B - White
Service temperature, maximum	170°F
Mixing ratio	Part B:Part A
By weight	100:9.8
By volume	100:8.0
Consistency	Nonsag
Extrusion rate at 30 psi, g/min	250-400
Application life at 75°F, 50% RH	15-30 minutes
Cut apart time at 75°F, 50% RH	1-2 hours
At 100°F	25-50 minutes

Surface preparation

Glass: To obtain good adhesion, the surface of the glass should be cleaned thoroughly using standard glass washing equipment with a detergent-based cleaner and hot water. The panels should be flushed thoroughly with softened or deionized water to remove all traces of detergent and immediately blown dry with oil-free high pressure air.

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Metal: To obtain good adhesion, the surfaces should be cleaned with an oil-free solvent.

Nylon: To obtain good adhesion to nylon corners, the surface should be primed with PRC Primer #51.

This can be accomplished by immersing the corners in a one quart can of primer.

After the corners have been coated, remove them from the can and let dry for 30 minutes on screening or absorbent paper.

Mixing instructions

Note: Proper mixing and correct proportions are extremely important if optimum results are to be obtained. Mixing by experienced personnel at a central location is recommended.

Various types of mechanical mixers can be used for mixing and dispensing PRC® 469FM insulating glass sealant. Continuous flow type mixers such as the Graco 987 and the Pyles 8900 HP Series can be used to mix and dispense PRC® 469FM insulating glass sealant. When using these mechanical mixers, automatic metering devices must be adjusted to deliver base compound with accelerator in a ratio of 100: 8.0 by volume (100: 9.8 by weight).

Caution: Mechanical mixing machines must be individually adjusted and mixing schedules worked out to give the best results for each operator. Mechanical mixing machines should be checked periodically during service to assure proper calibration and adjustments.

Application properties

Application life is the period of time that the compound remains at the consistency suitable for application. Application life is based on standard conditions at 75°F and 50% relative humidity. For every 18°F rise, the application life is reduced by half; for every 18°F drop, it is doubled. High humidity at the time of mixing also shortens the tack-free time and cure rate.

The length of the cure period depends upon the application life, temperature, and relative humidity.

The time/temperature relationship is approximately the same as it is for the application life. Low humidities will extend the cure time. Cure may be accelerated by applying heat up to 120°F.

Curing characteristics

PRC® 469FM insulating glass sealant cure properties are such that units can be handled 1 to 2 hours after fabrication at a room temperature of 75°F. Cure is further hastened by

temperatures above 100°F. Temperatures above 120°F are generally not recommended.

Maintenance

Repair to damaged areas or remedial work on sealant (gas filling) requires cutting back to fresh material (if existing sealant is more than 24 hours old) and applying new material. For specific recommendations contact your local sales office.

Technical services

Additional technical information and literature are available from your PRC-DeSoto International PRC® Insulating Glass Sealants sales office.

Availability

When ordering this product, designate PRC® 469FM insulating glass sealant.

Packages	55 gallon kits
Total contents and container Quantity	55 gallon unit 12,705 cubic inches

Note: The unit number in small kits designates the total fluid ounce content of accelerator and base compound. Standard units are furnished with a premeasured quantity of base compound and accelerator individually packaged and assembled for mixing by the customer.

Shelf life

The shelf life of PRC® 469FM insulating glass sealant is at least 6 months when stored at temperatures below 80°F in the original, unopened containers. Slight changes in the application properties may occur in storage, but these changes should not affect the performance properties of the cured material.

Health precautions

This product is safe to use and apply when recommended precautions are followed. Before using this product, read and understand the Material Safety Data Sheet (MSDS), which provides information on health, physical and environmental hazards, handling precautions and first aid recommendations. An MSDS is available on request. Avoid overexposure. Obtain medical care in case of extreme overexposure.

For emergency medical information, call
1-800-228-5635.

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