

PRC® 4400 insulating glass sealant

Description

PRC® 4400 insulating glass sealant is a two-part thixotropic sealing compound specifically developed for sealing insulating glass units against the penetration of moisture. PRC® 4400 insulating glass sealant is based on silicone polymer and is designed for use with polyisobutylene inner seal (PRC® 488) in the manufacture of insulating glass units. PRC® 4400 insulating glass sealant is intended for use in the manufacture of insulating glass units for residential, commercial, and structurally glazed applications.

Use

PRC® 4400 insulating glass sealant is designed to provide excellent bonding and sealing characteristics when used in the manufacture of insulating glass units. PRC® 4400 insulating glass sealant exhibits excellent adhesion to glass, even after exposure to ultraviolet radiation through glass. The sealant will resist severe weathering, ozone exposure, and solar radiation while retaining excellent adhesion to glass and metal. This high adhesive strength is maintained after long exposures to ultra violet radiation and moisture, vibrational stresses, and temperature extremes.

Applicable standards

Insulating glass units manufactured with PRC® 4400 insulating glass sealant meet or exceed the requirements of ASTM E-774 and CAN/CGSB 12.8.

Limitations

PRC® 4400 insulating glass sealant is not intended for use in the manufacture of single seal units. PRC® 4400 insulating glass sealant should be used in conjunction with PRC® 488 polyisobutylene as a primary seal. Insulating glass units made with PRC® 4400 insulating glass sealant should be fabricated and glazed in accordance with recognized industry standard for vertical, sloped, and structural glazing as applicable. For specific recommendations, contact your local PRC-DeSoto International sales representative. PRC® 4400 insulating glass sealant is designed for use in structural adhesive sealant applications. Applications incorporating four-sided structural glazing must be reviewed by PRC-DeSoto International technical staff. Full adhesion and compatibility testing for these applications must be completed.

PRC®-brand insulating glass sealants are compounded to be compatible with many commercial glazing materials. However, compatibility should 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

Note: All values for this product are typical for the material but are not intended for use in specifications or for acceptance inspection criteria because of variations in testing methods, conditions, and configurations.

Hardness, Rex A	
After 16 hours at 75°F 50% RH	40
Nonvolatile content, minimum	99%
Tensile strength 2" x 1/2" x 12" sample	80 psi
Adhesion 16 hours at 75°F,	
Cohesive failure	
Glass surface	100%
Mill finish aluminum spacer	100%
Anodized aluminum spacer	100%
Galvanized steel spacer	100%
Shrinkage test	
Defection, butterfly type	0%
Color	
Part A	Black
Part B	White
Mixing ratio	Part B:Part A
By weight	100:7.9
By volume	100:10.0
Consistency - Slump	<0.10 inch
Extrusion rate at 70 psi, g/min	220
Application life at 75°F, 50% RH	60 minutes
Tack free time at 75°F, 50% RH	<3 hours

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 warm 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 clean and free of contamination.

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® 4400 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® 4400 insulating glass sealant. When using these mechanical mixers, automatic metering devices must be adjusted to deliver base compound with accelerator in a ratio of 100:10.0 by volume (100:7.9 by weight).

Caution: Mechanical mixing machines should be checked periodically during service to assure proper calibration and adjustments.

Application

Application life is the period of time that the compound remains at a consistency suitable for application.

Application life is based upon standard conditions at 75°F and 50% relative humidity.

The length of the cure depends upon the application life, temperature, and relative humidity. Low humidities will extend the cure time.

Curing characteristics

PRC® 4400 insulating glass sealant cure properties are such that units can be handled three hours after fabrication when cured at a room temperature of 75°F.

Maintenance

Wash equipment with a suitable solvent immediately after use or before sealant cures. Use commercial stripping compounds to remove cured sealant.

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® 4400 insulating glass sealant.

Packages: Available in 55-gallon unit.

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

Note: 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® 4400 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 over-exposure. Obtain medical care in case of extreme overexposure.

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

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All recommendations, statements, and technical data contained herein are based on tests we believe to be reliable and correct, but accuracy and completeness of said tests are not guaranteed and are not to be construed as a warranty, either expressed or implied. User shall rely on his own information and tests to determine suitability of the product for the intended use and assumes all risks and liability resulting from his use of the product. Seller's and manufacturer's sole responsibility shall be to replace that portion of the product of this manufacturer which proves to be defective. Neither seller nor manufacturer shall be liable to the buyer or any third person for any injury, loss, or damage directly or indirectly resulting from use of, or inability to use, the product. Recommendations or statements other than those contained in a written agreement signed by an officer of the manufacturer shall not be binding upon the manufacturer or seller.