

## 616

## Glass / Glazing Construction Silicone Sealant

## Technical Data Sheet

**Product Information****Description**

Z Bond 616 is a one component, non-flowing, neutral cure, mid modulus silicone sealant. It cures by absorption of atmospheric moisture to form a flexible and durable elastomeric sealant.

**Special Features**

Z Bond 616 Translucent has been developed for use in glazing weatherseals. It offers good adhesion to glass, coated aluminium and masonry.

The thixotropic nature of this product ensures that it will not slump in typical construction joints.

**Typical Uses**

- Weatherseals between glass and aluminium.
- Backglazing between timber and glass.
- Perimeter seals between aluminium window frames and brick and masonry, and
- Air seals in concrete panels.

**One Part System**

Being a one-part sealant Z Bond 616 Translucent offers the confidence of consistent even cure. It also improves operator productivity, as time is not lost mixing the product, is easy to use in difficult locations, and can be applied out of a standard cartridge gun.

**Long Life Reliability**

**Z BOND 616 Translucent** has excellent natural ageing stability. It will maintain its elastomeric joint sealant properties permanently, even under harsh conditions and temperature extremes.

**Characteristics****System Properties**

Property	Mean Result Achieved	Test Method
Skin Time	8 Minutes	BS 5889
Tack Free Time	30 Minutes	ASTM C679
Tooling Time	10 Minutes	ASTM C679
Sag or Slump	Nil	BS 5889

**Cured Properties**

Property	Mean Result Achieved	Test Method
Shore A Hardness	17	ASTM C 661
Modulus at 100% Elongation	0.40 MPa	ASTM D 412
Tensile Strength	1.5 MPa	ASTM D 412
Elongation at Rupture	670%	ASTM D 412
Peel Strength after UV through Glass	50N/25mm	BS5889
Dynamic Movement Capacity	±20%	ASTM C 920
Accelerated Aging and Weathering	Excellent	ASTM C 792



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## Temperature

	Minimum	Maximum
Application Temperature	-10°C	+40°C
Service Temperature	-50°C	+150°C

Application of the sealant at -10°C is permissible provided the surface to receive the silicone is dry and free of frost. The maximum service temperature listed is for transient temperature: the silicone sealant will deteriorate if subjected to these temperatures on a continuous basis.

## Colours

Translucent

## Packaging

The standard packaging for Z Bond 616 Translucent is 300ml polyethylene cartridges. We can pack it into many different containers, please contact your local agent for details of minimum order size, lead-time and dispensing methods.

## Sealant Application

### Joint Design

The sealant must be capable of withstanding the expected joint movement. To calculate the joint width, establish the expected movement (expansion, contraction and shear movement) that the joint is required to withstand. The dynamic movement capability of **Z BOND 616 Translucent** is  $\pm 20$ . The Data Sheet on Joint Design contains the formula for calculating the required joint width from the expected joint movement and dynamic movement capability of the sealant.

The joint design must avoid three-sided adhesion.

The sealant depth for a weatherseal is normally half the joint width. The minimum acceptable joint depth is 6mm; therefore, if the required joint width is 6mm the depth is also 6mm.

### Back Up Material

Use a closed cell polyethylene-backing rod 25% larger than the joint width, to control the depth of the joint.

### Compatibility with Adjacent Substrates

Silicones are not always compatible with plasticised sealants, such as butyls. Also some backing rods and glazing tapes contain bitumen or other agents that are incompatible with the silicone. The incompatibility may cause discolouration, poor sealant cure or long term degradation of the sealant. Always carry out compatibility tests where contact with potentially incompatible materials occurs.

### Application

Always ensure that the surfaces to be sealed are dry and free from oil, dirt and grease. Use the two-wipe process for impervious substrates. Ensure the cloths are clean and changed frequently, and use a suitable cleaner/solvent such as Z Bond R-40, IPA or 100% White Spirits. When extruding the sealant cut the nozzle to the desired width, cut the tip off the cartridge, and apply the sealant firmly to ensure good contact between the sealant and the substrate. Before the sealant has skinned, tool it off to ensure a good finish, and to improve the wetting out of the sealant to the substrate.

To achieve satisfactory adhesion a primer may be required for some substrates. Consult Bostik or your distributor for more information.



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## **Curing**

Z BOND 616 Translucent cures by absorbing atmospheric moisture, it will skin over in 8 minutes and cure to a depth of 7mm in 7 days.

## **Design Support**

Because of the importance of Surface Preparation, Sealant Application and Joint Design Bostik Australia provide specific Data Sheets on these topics. These data sheets are available free of charge, and we strongly recommend that you consult these sheets before commencing application of the sealant. We will also review shop or working details, test substrates, and associated materials for compatibility and adhesion, and make sealant recommendations when requested.

## **Storage and Shelf Life**

Always store the sealant in a cool dry place. Ideal storage temperature is not more than 25°C. Prolonged storage at high temperatures may affect shelf life and ultimate performance. The shelf life of **Z BOND 616 Translucent** is 9 months from date of manufacture when stored below 25°C and below 50% relative humidity.

## **Limitations**

Z BOND 616 Translucent is **NOT** suitable for use in the following applications:-

- As the sealant requires atmospheric humidity to cure, it will not cure in totally confined spaces where it does not have access to atmospheric humidity.
- Aquariums
- Adhering Mirrors
- Structural Glazing
- Under Water Applications ( including swimming pools)
- N.B. This product is suitable for some applications where the sealant is in contact with water for extended periods. Please contact Rhodia Australia Pty. Ltd. to confirm your design details before commencing such an application.
- Below Grade Applications
- All Stone's (We recommend the completion of a stain testing program before using any sealant on stone) and
- Horizontal walkways.
- Do not clean or treat the sealant with materials, cleaning agents or solvents, that may affect or discolour the sealant, particularly during product curing.

**This silicone is not paintable. If there is a requirement to paint the sealant, our recommendation is to use our Z Bond Multi Purpose silicone sealant or Z Bond Gap Filler acrylic sealant products. Follow both the sealant and paint manufacturers painting instructions carefully, when painting sealants.**

## **2.2 Health and Safety**

Full product safety information required for safe use is not included in this data sheet. Before handling, read the separate Material Safety Data Sheet (MSDS) and packaging for safe use.

In case of product emergency refer to product labelling or MSDS and contact phone numbers. A copy of the product MSDS is available from Bostik or its distributors.

## **Important Notice for Users**

Suggestions for use should not be taken as an inducement to infringe any particular patent.  
\*Z Bond is a registered trademark of Bostik Australia



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