

WEIDU WD-881



Neutral Silicone

Two-Component Insulating Glass Sealant

Product Description

WEIDU™ WD-881 is a two-component neutral-cure silicone sealant engineered as a secondary sealing solution for high-performance insulated glass (IG) units, particularly air-filled insulating glass assemblies. Forming a durable, flexible elastomer through atmospheric moisture curing, it ensures rapid deep-section curing with adjustable open time to streamline production workflows. Ideal for sealing joints in laminated and tempered safety glass components, this industrial-grade sealant delivers superior adhesion, thermal stability, and structural integrity in factory-controlled environments.

Features

- Odorless and non-corrosive cure byproduct
- Faster early hour cure properties to facilitate handling of assembled units.
- Extraordinary adhesion power to glass, aluminium, and steel
- Neutral cure – suitable for use on coated glass, galvanized steel, masonry, and other porous and non-porous substrates.
- Cures to form an extremely tough elastomeric rubber ensuring a durable, flexible, watertight bond.

Conforms, Meets & Exceeds

WEIDU™ WD-881 Sealant has been internally tested and is designed to meet or exceed the test requirements of: GB/T 29755-2G-25HM

Typical Properties-Uncured

Information on this data sheet can change without notice, and it is therefore not recommended that these figures be used in spec writing. If you have any questions, please contact manufacturer's sales and technical service department.

Properties	Value – Base, A	Value – Catalyst, B	Test Method
Appearance	No Grain & No Agglomerations		ISO 11600:2002 - Building construction — Jointing products
Color Before Mixing	White	Black	
Color After Mixed	Black		
Consistency	Thixotropic Paste		
Chemical base	2-component silicone		
Basis	Silicone Sealant		
Cure mechanism	Polycondensation		
Cure Type	Alkoxy (Neutral)		
Conforms to	GB/T 29755-2G-25HM		
Density at 25°C g/cm ³	1.60	1.05	ISO 1183
Mixing Ratio - A:B by Volume	10:1~12:1		
Work Life (Snap time)	10-15 minutes		
Tack Free Time	100 minutes		ASTM C679
Sag/Slump	0, Non sag		ISO 7390

Typical Properties-Cured

Properties	Value	Test Method
Hardness, Shore A	42	ASTM D-2240-97
Ultimate Tensile Strength	0.7MPa	ISO 8339:2005 - Building construction — Sealants
Ultimate Elongation, %	60	ISO 8339:2005 - Building construction — Sealants
Heat weight loss,%	2.6	ISO 10563:2023 - Building and civil engineering sealants
Joint Movement Capability	±25%	ASTM C719
Service Temperature Range (after cure)	-40°C to +150°C	
Application temperature (ambient)	+5°C to +50°C	
Cure Rate / Day (deep section)	7 mm	
Full Cure (most common bead sizes)	2-3 days	

Surface Preparation

Sealants may not adhere or maintain long-term adhesion to substrates if the surface is not prepared and cleaned properly before sealant application. Surfaces must be clean, dry, free from grease, oil and dust. Surface treatment depends on the specific nature of the substrates and is crucial for a long lasting bond.

Isopropyl Alcohol (IPA) is commonly used and has proven useful for most substrates. Xylene and Toluene have also been found useful on many substrates.

Cleaning Procedures

- Use clean, white cloths free of lint or other lint-free wiping materials.
- Do not use detergent to clean the substrate, as residue may be left on the surface.
- Clean only as much area as can be sealed in one hour. If cleaned areas are again exposed to rain or contaminants, the surface must be cleaned again.

Note: When using any solvent, always provide adequate ventilation. Avoid heat, sparks and open flames. Use solvent resistant gloves. Observe and follow all precautions listed on the solvent container label.

Masking

Areas adjacent to the joints should be masked with tape to prevent contamination of the substrates and to ensure a neat sealant line. Remove masking immediately after the application of silicone or as soon as possible.

Primers

Primers are not usually required, but might be needed for some specific substrates for maximum adherence.

WEIDU™ WD-881 will bond to many clean surfaces without the aid of a primer. For difficult-to-bond substrates, the use of a primer or special surface preparation should be evaluated. When properly used, primers help ensure strong and consistent sealant adhesion to surfaces that may be difficult to bond.

PRIMER APPLICATION IS NOT A SUBSTITUTE FOR SURFACE PREPARATION.

Tooling & Finishing

Tooling and finishing must be carried out within the snap time of the sealant to give a smooth & professional finish. The joint should be tooled within 5 minutes of application to ensure good contact between the sealant and the substrate. When tooling freshly applied WEIDU™ WD-881, press the adhesive to the joint flanks to get a good wetting of the bonding surface. No tooling agents should be used.



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Application

The optimum temperature for substrate and sealant is between 15 °C and 25 °C. Before processing WEIDU™ WD-881, both components have to be mixed homogeneously and air-bubble-free in the correct ratio as indicated with an accuracy of ±10 %. Most commercially available metering and mixing equipment is suitable. Consider that the B-component is moisture sensitive and must therefore only be exposed briefly to air. Joints must be properly dimensioned.

Cure Mechanism

WEIDU™ WD-881 starts to cure immediately after mixing the two components. The speed of the reaction depends mainly on the temperature; i.e., the higher the temperature the faster the curing process. Heating above 50 °C could lead to bubble formation and is therefore not allowed. The mixer open time, i.e., the time the material can remain in the mixer without flushing or extrusion of product, is significantly shorter than the snap time indicated above.

Clean Up

Excess sealant and smears adjacent to the joint interface can be carefully removed with xylene or mineral spirits before the sealant cures. Any utensils used for tooling can also be cleaned with xylene or mineral spirits. Once cured, the material can only be removed mechanically. Hands and exposed skin should be washed immediately using a suitable industrial hand cleaner and water. Do not use the solvents on skin!

Storage & Shelf Life

WEIDU™ WD-881 Insulating Glass Silicone Sealant should be stored in cool and dry conditions. Prolonged storage at high temperatures may affect shelf life and ultimate performance. The shelf life of WEIDU™ WD-881 is 12 months from the date of manufacture when stored below 25°C and below 50% relative humidity. In countries where high heat and humidity are a factor, special precautions must be taken to store the product in a covered, well-ventilated warehouse and avoid excessive heat conditions.

Packaging Information

WEIDU™ WD-881 Insulating Glass Silicone Sealant is supplied in Drum 190 Ltr and Pail 19 Ltr

Caution/Safety

Please refer to the SDS for the corresponding product for information regarding safety and handling. Before handling, read product and safety data sheets and container labels for safe use, physical and health hazard information. The Material Safety Data Sheet is available upon request.

Limitations

WEIDU™ WD-881 Insulating Glass Silicone Sealant should not be used, applied or is not recommended for the following applications:

- In food contact applications.
- In designs where the sealant is encapsulated and without access to atmospheric moisture (this material requires atmospheric moisture to cure from paste to rubber).
- Under exceedingly hot or cold conditions. Cold temperatures and low humidity will slow curing.
- Underwater or in applications where the product will be in continuous contact with water.
- For contact with strong acids or bases.
- On bituminous substrates, substrates based on natural rubber, chloroprene or EPDM or on building materials which might bleed oils, plasticizers or solvents.
- Not for structural glazing.



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Warning Information

WEIDU™ warrants that its product complies, within its shelf life, to its specification.

If any responsibility were to be considered ours, this would be only for any damages and for the value of the merchandise supplied by us and used by the customer. It is understood that we warranty the irreproachable quality of our products in accordance with our General Conditions of Sales and Supply.

Liability

The information in this document, in particular recommendations regarding the application and final use of our products, is given in good faith based on our knowledge and is the result of tests and experience and is intended as guidelines. It is the responsibility of the user to determine whether the product is suitable for their application. Due to the great variety of materials and conditions, which are beyond our knowledge and control, we recommend carrying out sufficient prior trials.

The property rights of third parties must be respected.

This TDS replaces and supersedes all previous data sheets for the same product.



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