

WEIDU WD-866

Neutral Silicone

Advanced Weatherproofing Sealant



Product Description

WEIDU™ WD-866 Advanced Weatherproofing Silicone Sealant is a premium single-component, high modulus neutral cure sealant engineered for precision weatherproofing, glazing, and versatile construction applications.

Specially formulated for building facades, perimeter bonding, and non-structural expansion joints, it adheres reliably to diverse substrates including glass, metal, composites, coated surfaces, and most architectural materials without requiring primers in standard conditions.

Features

- ☑ 100% silicone
- ☑ Easy to use
- ☑ Good adhesion to most common building materials
- ☑ Waterproofing and weatherproofing
- ☑ 25% Joint Movement Capability

Conforms, Meets & Exceeds

WEIDU™ WD-866 Advanced Weatherproofing Silicone Sealant has been internally tested and is designed to meet or exceed the test requirements of: GB/T 14683-F-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.

Property	Value	Test Method
Color	Black/White/Color	
Polymer	100% Silicone	
Consistency	Paste	
Appearance	Have no grain. No Agglomerations	ISO 11600
Conforms to	GB/T 14683-F-25HM	
Work Life (tooling time)	10-15 minutes	
Tack Free Time	30 minutes	ASTM C679
Specific Gravity (Density, g/cm ³)	1.47	ISO 1183
Sag/Slump	0, Non sag	ISO 7390

Typical Properties-Cured

Property	Value	Test Method
Hardness, Shore A	40	ASTM D2240-97
Ultimate Tensile Strength	0.6 Mpa	ISO 8339
Ultimate Elongation, %	460	ISO 8339
Extrudability, g/min	350	ISO 8394
Heat weight loss, %	6.8	ISO 10563
Joint Movement Capability	±25%	ASTM C719
Service Temperature Range (after cure)	-40°C to +150°C	
Application Temperature	-5°C to +50°C	
Cure Rate(25°C 75%RH)		
day 1 deep section	2.5mm	
days 3 deep section	4.5mm	

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-866 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-866, press the adhesive to the joint flanks to get a good wetting of the bonding surface. No tooling agents should be used.

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-866 Advanced Weatherproofing 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-866 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-866 Advanced Weatherproofing Silicone Sealant is supplied in 580ml Sausage or 280ml cartridge.

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-866 Advanced Weatherproofing 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.
- ☒ Sealant may discolor copper and brass.
- ☒ 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.

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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