

WEIDU WD-886

High Performance Metal Cladding Sealant

TECHNICAL DATASHEET



PRODUCT DESCRIPTION & APPLICATION

WEIDU™ WD-886 is a high-performance architectural grade Metal Cladding Silicone Sealant. One component, non-flowing, neutral cure, high modulus sealant particularly formulated for natural stone and metal cladding application. Excellent adhesion to most of the building materials without priming, and can be used at all kind of weather. It cures by absorption of atmospheric moisture to form a flexible and durable elastomeric silicone rubber bead for dry fixed material with excellent resistance to UV, water and natural weathering.

FEATURES & BENEFITS

- ☑ Odorless and Non-corrosive cure byproduct
- ☑ High Modulus and Low Dirt Pickup
- ☑ Minimized fluid migration
- ☑ Designed to allow sufficient time for placement and tooling before skinning.
- ☑ 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.
- ☑ Primer less adhesion, Bonds to most conventional substrates and finishes including: glass, glass coatings, ceramic frits, fluoropolymer and powder coated paints, conversion-coated, concrete, masonry, brick, painted & anodized aluminum, terra-cotta, PVC-U, tile, polycarbonate, vinyl, plastics, wood, metal and natural stones.
- ☑ Excellent long-term resistance to natural weathering including: sunlight, rain, snow, ultraviolet radiation, heat and humidity, ozone and temperature extremes.
- ☑ Cures to form an extremely tough elastomeric rubber ensuring a durable, flexible, watertight bond

CONFORMS, MEETS & EXCEEDS

WEIDU™ WD-886 Metal Cladding 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 contact manufacturer 's sales and technical service department.

Properties	Value	Test Method
Appearance	No Grain & No Agglomerations	ISO 11600
Color	Black	
Consistency	Paste	
Chemical base	One-component	
Basis	100% Silicone	
Cure Type	Neutral	
Total VOC content	< 30 g/L	
Conforms to	GB/T 14683-GW-25HM	
Density at 25°C	g/cm3 1.44	ISO 1183
Work Life (Tooling time)	10 minutes	
Tack Free Time	60 minutes	ASTM C679
Sag/Slump	0, Non-sag	ISO 7390

TECHNICAL DATASHEET

TYPICAL PROPERTIES – CURED

Properties	Value	Test Method
Hardness, Shore A	45	ASTM D-2240-97
Ultimate Tensile Strength	0.87, MPa	ISO 8339
Ultimate Elongation, %	575	ISO 8339
Heat weight loss, %	4.1	ISO 10563
Joint Movement Capability	±25%	ASTM C719
Extrudability, g/min	675	
Service Temperature Range (after cure)	-40°C to +150°C	
Application temperature (ambient)	+5°C to +50°C	
Cure Rate / Day (deep section)	2 mm	
Full Cure (most common bead sizes)	7-14 days	

HOW TO USE

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. Using proper materials and following prescribed surface preparation and cleaning procedures is vital for sealant adhesion. Surface preparation Ensure that surfaces to be sealed are clean, dry, sound and grease-free. 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.
- Remove all loose material (such as dirt and dust), plus any oil, frost or other contaminants from the substrates to which the structural silicone will be adhered.
- 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 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 application of silicone or as soon as possible. To simplify clean-up of excess sealant, use easy to release, pressure sensitive tape to mask adjacent surfaces before applying the structural silicone sealant.

PRIMING

WEIDU™ WD-886 Metal Cladding Sealant adheres to most common construction materials without primer. However, a preliminary adhesion test is recommended on every surface. Sometimes, it may be necessary to treat the joint surfaces with a primer to obtain better adhesion performances.

INSERTING BACKING MATERIAL

Use the closed cell polyethylene backer foam as a back-up material to limit the sealant joint depth and avoid the sealant to adhere to the joint base. Choose the right backing strip diameter (at least 25% wider than the joint width)

SILICONE SEALANT APPLICATION

After substrate preparation, apply the sealant with a professional caulking gun, evenly and without bubbles. Observe the eventually used primer's open time before filling the joint.

TOOLING AND FINISHING

The joint should be tooled and smoothed before skin formation. Press the sealant and smooth it ensuring good contact with the surfaces to seal. Use neutral soapy water as a tooling agent. Remove masking tape. Uncured product may be easily removed with solvents such isopropyl alcohol or "white spirit". Cured sealant must be removed mechanically.

TECHNICAL DATASHEET

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 solvents!

PACKAGING INFORMATION

WEIDU™ WD-886 Metal Cladding Sealant is supplied in 590ml sausages packed in boxes of 20.

STORAGE & SHELF LIFE

WEIDU™ WD-886 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-886 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.

LIMITATIONS

WEIDU™ WD-886 Metal Cladding Sealant not be used, applied or is not recommended to the following applications:

- In food contact applications.
- In designs where the silicone 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 temperature 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 recommended for structural glazing

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.

WARRANTY 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 over 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, are given in good faith based on our knowledge and is the result of tests and experience and are intended as guidelines. It is the responsibility of the user to determine whether the product is suitable for the application. Due to the great variety of materials and conditions, which are beyond our knowledge and control, we recommend carrying out sufficient previous trials.

The property rights of third parties must be respected.

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



Manufactured & Imported By
Weidu Adhesives Trading.L.L.C.
P.O.Box: 39942, 2402-SIT Tower,
Silicone Oasis, Dubai, United Arab Emirates
Phone: +971 4 285 3088
Email: weiduadhesives@gmail.com
www.hnweidu.com



Hunan Weidu Energy Saving Material Co., Ltd

IN CONFORMITY WITH QUALITY MANAGEMENT SYSTEM STANDARDS: ISO 9001, ISO 14001 & ISO 45001