

# WEIDU WD - 188 SILICONE



High Quality Mold & Mildew Resistant Transparent Sealant



## TECHNICAL DATASHEET

### PRODUCT DESCRIPTION

**WEIDU™ WD-188 Mold & Mildew Resistant MS Transparent Sealant is a professional grade neutral alkoxy cure, One-component high strength mirror adhesive based on Silyl Modified Polymer (MS Polymers™).**

WEIDU™ WD-188 is a solvent and isocyanate free, retains all the properties of elasticity and adhesion, not having aging problems, remain stable to atmospheric conditions, and will remain easy to dispense and tool even at cold temperatures and provides superior adhesion, flexibility and longevity. WEIDU™ WD-188 has excellent physical properties and will continue to perform long-term in a variety of applications. It emits very low odor which makes it ideal for confined work spaces or occupied areas.

### FEATURES

- ☑ Paintable, Mold & Mildew Resistant
- ☑ Resistant to vibration
- ☑ Specially designed for use with mirror. Don't affect the mirror silver.
- ☑ Odorless and Non-Corrosive cure Byproduct, and it doesn't Flow.
- ☑ 25% Joint Movement Capability
- ☑ Easy to Extrude At Cold Temperatures
- ☑ Excellent For Indoor & Outdoor Applications, creates a high strength waterproof seal
- ☑ Non-Slump, Can Use On Overhead & Vertical Applications
- ☑ Advanced Adhesion Properties, as it doesn't contain Solvents and doesn't shrink.
- ☑ Excellent Unprimed Adhesion to a wide variety of construction materials and building components.
- ☑ Extremely resistant to UV degradation, yellowing, temperature extremes and most chemicals.
- ☑ Neutral Alkoxy cure – Suitable for use on Coated Glass, Galvanized Steel, Masonry and other Porous and Non-Porous substrates, Will not corrode concrete or zinc coated / galvanized steel

### CONFORMS, MEETS & EXCEEDS

WEIDU™ WD-188 Mold & Mildew Resistant MS Transparent Sealant has been internally tested and is designed to meet or exceed the test requirements of: GB/T 14683-F-25HM

**Common Applications:** WEIDU™ WD-188 is an excellent sealant for many Commercial, Industrial and Construction applications. Such applications include:

- Walk-In Freezer Manufacturing & Installation
  - RV & Trailer Manufacturing
  - Vinyl, Metal & Aluminum Siding & Roofing
  - Fiberglass Waterproof Sealing
  - Industrial Manufacturing Applications
  - Concrete Joint Sealant
  - HVAC Applications
  - Glass Glazing
  - Lead Wire Entry Installation
  - Sheet Metal Work & Sealing
  - Marine Applications
  - General Sealing & Bonding Applications
  - Can be used for additional applications not listed.
- WEIDU™ recommends testing prior to use.

**Common Bonding Substrates:** WEIDU™ WD-188 can be used on a variety of substrates. Please inquire or test your substrates before use. We have listed some common substrates:

- Glass
  - Concrete, Brick, Mortar
  - Marble & Granite
  - Most Metals
  - Most Types Of Woods
  - Most Fiberglass
  - Aluminum
  - Ceramic
  - Natural & Synthetic Fiber
  - Most Painted Surfaces
  - Some Plastics
  - Can be used on additional substrates not listed.
- WEIDU™ recommends testing prior to use.

### PACKAGING INFORMATION

WEIDU™ WD-188 is available in 300ml cartridges packed in boxes of 24 Pcs.

## COVERAGE

300ml cartridge will give approximately 15 lineal meters of a 5mm bead.

## COLORS

WEIDU™ WD-188 is available in clear color.

## 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	Transparent	
Consistency	Paste	
Chemical base	One-component silicone	
Basis	MS-Polymer	
Cure Type	Neutral Alkoxy Cure	
Total VOC content	< 30 g/L	
Conforms to	GB/T 14683-F-25HM	
Density at 25°C	g/cm <sup>3</sup> 1.04	ISO 1183
Work Life (Tooling time)	10 minutes	
Tack Free Time	40 minutes	ASTM C679
Sag/Slump	0, Non sag	ISO 7390

## TYPICAL PROPERTIES – CURED

Properties	Value	Test Method
Hardness, Shore A	49	ASTM D-2240-97
Ultimate Tensile Strength	1.5, MPa	ISO 8339
Ultimate Elongation, %	100	ISO 8339
Heat weight loss, %	3.1	ISO 10563
Joint Movement Capability	±25%	ASTM C719
Extrudability, g/min	269	
Service Temperature Range (after cure)	-40°C to +90°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	

## METHOD OF APPLICATION

### 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 and free from grease, oil and dust. Surface treatment depends on the specific nature of the substrates and is crucial for a long lasting bond. Higher temperature and higher humidity will accelerate skin & cure time. Cold temperatures and low humidity will slow down skin & cure time

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 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.

## **PRIMING**

WEIDU™ WD-188 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 as isopropyl alcohol or "white spirit". Cured sealant must be removed mechanically.

## **STORAGE & SHELF LIFE**

High temperature and high humidity can significantly reduce shelf-life. Storage in high heat, high humidity condition may reduce shelf life by around 30%. WEIDU™ WD-188 should be stored in cool and dry conditions, not over 28°C away from direct sun light and source of heat. WEIDU™ WD-188 has a shelf life of 12 months from the date of manufacturing if stored in original unopened container. 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-188 not be used, applied or is not recommended to the following applications:**

Not recommended for food direct 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 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.

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

**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.

**Hunan Weidu Energy Saving Material Co., Ltd**