

# WEIDU WD-166

High Quality Mold & Mildew Proof GP Plus Sealant

## TECHNICAL DATASHEET



### PRODUCT DESCRIPTION

**WEIDU™ WD-166 Mold & Mildew Proof sealant is a One-Component neutral alkoxy cure, professional grade and high strength Sealant based on Silyl Modified Polymer (MS Polymers™).**

WEIDU™ WD-166 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-166 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
- ☑ Resistant to vibration-High initial adhesion and high mechanical strength
- ☑ Mold & Mildew Resistant, excellent for indoor & outdoor applications
- ☑ Advanced adhesion properties creates a strong waterproof seal
- ☑ Odorless and non-corrosive cure byproduct
- ☑ Extremely resistant to UV degradation, yellowing, temperature extremes and most chemicals.
- ☑ Non-Slump, It doesn't flow, can use on overhead & vertical applications
- ☑ Easy to extrude at cold temperatures
- ☑ One-Component, easy to use formulation with 20% Joint movement capability
- ☑ Excellent unprimed adhesion to a wide variety of construction materials and building components.
- ☑ Neutral Alkoxy cure – suitable for use on coated glass, galvanized steel, masonry and other porous and non-porous substrates

### CONFORMS, MEETS & EXCEEDS

WEIDU™ WD-166 Mold & Mildew Proof GP+ MS Sealant has been internally tested and is designed to meet or exceed the test requirements of: GB/T 14683-F-20HM

**Common Applications:** WEIDU™ WD-166 is an excellent sealant/ adhesive 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
- General Sealing & Bonding Applications
- Glass Glazing & Concrete Joint Sealant
- Lead Wire Entry Installation
- Sheet Metal Work & Sealing
- Marine Applications, HVAC Applications
- Can be used for additional applications not listed. Weidu recommends testing prior to use.

**Common Bonding Substrates:** WEIDU™ WD-166 can be used on a variety of substrates. Please inquire or test your substrates before use. We have listed some common substrates:

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

### COVERAGE

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

### COLORS

WEIDU™ WD-166 is available in white color. Other colors under request.

### PACKAGING INFORMATION

WEIDU™ WD-166 available in 300ml cartridges packed in boxes of 24 Pcs. Other packaging is available under request

# TECHNICAL DATASHEET

## 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.

## 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	White	
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-20HM	
Density at 25°C	g/cm <sup>3</sup> 1.6	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	46	ASTM D-2240-97
Ultimate Tensile Strength	1.2, MPa	ISO 8339
Ultimate Elongation, %	180	ISO 8339
Heat weight loss,%	2.0	ISO 10563
Joint Movement Capability	±20%	ASTM C719
Extrudability, g/min	450	
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	

## 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.

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.

# TECHNICAL DATASHEET

## 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-166 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.

## 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-166 should be stored in cool and dry conditions, not over 28°C away from direct sun light and source of heat. WEIDU™ WD-166 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-166 not be used, applied or is not recommended to 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 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.



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](mailto:weiduadhesives@gmail.com)  
[www.hnweidu.com](http://www.hnweidu.com)



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

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