

# SUPolyurea Super Polyurea Waterproof Coating (Hand-applied Type)

TDS

## Product Introduction

Hand-applied SUPolyurea Super Polyurea Waterproof Coating (hereinafter referred to as “Hand-applied SUPolyurea”) is the latest development of the third generation polyurea elastomer by Joaboa Tech Group. It is a revolutionary leap of traditional coating technology and one of the most advanced waterproof construction technologies in the world. It’s solvent-free, two-component, hand-scraped elastic polyurea material, of strong adhesion to the substrate, of high tensile strength, good elasticity, good wear resistance, not sensitive to moisture and so on.

## Product Features

Convenient for application	No need of high temperature and high pressure spraying equipment.
Environmental-friendly	Solvent-free and environmentally friendly, and it can be cured at room temperature.
Seamless	Continuously seamless, reducing the risk of leakage
Superb Waterproofing Performance	The coating is compact and continuous, no seams, of high elasticity, and can keep good waterproof performance in the case of wind, rain and sun.
Excellent Physical Properties	High strength, high elongation, high tearing strength, can withstand water, sea water, acid, alkali, salt and other types of erosion.
Pursuit Performance	Excellent crack pursuit performance, can withstand structural deformation without damage to polyurea coating itself.

## Application Area

Hand-applied SUPolyurea Mainly used for some projects that are not easy to use spray construction, also can be used as auxiliary product during the application of sprayed polyurea material. Typical application fields include:

- ★ Roofing, Flooring and Building Waterproofing
- ★ Sewage treatment tank, swimming pool, water park
- ★ Wear-resistant and waterproofing for stadium stands
- ★ Petroleum, petrochemical, chemical, mining and other industries of all kinds of concrete

storage tanks and ancillary facilities

- ★ Marine steel structure, cross-sea bridge, dike and other Marine and coastal facilities.

## Substrate Treatment

Before construction, ensure that the surface of the substrate is clean and free from oil, dust and other impurities. For the metal substrate, it is recommended to use sandblasting or manual (mechanical) grinding, so that the surface cleanliness can meet the requirements of Sa2.5 standard and coating matching anti-rust primer; Surface defects such as cracking and hollow drum should be repaired first for the concrete substrate before coating the matching primer. When it is used as the repair material for spraying polyurea, manual polyurea can be used directly for local repair just after the construction of spraying polyurea. If the old coating is repaired, the surface of the old coating should be polished before the application.

## Application Process

1. Before use, stir component B evenly (No sediment, with consistent color).
2. According to weight ratio as Part A: Part B=10:3, accurately weigh Part A and Part B for preparation, after evenly manual or mechanical mixing, it can be constructed. (Usually mechanical stirring for 1-2min)
3. During manual application, the longest coating interval should not exceed 48h.
4. Manual polyurea is a reactive two-component coating, which should be used on the spot according to the needs of the site, so as to avoid gelation and scrap.
5. The recommended thickness is 1~3mm (depending on user requirements), and the recommended thickness of a single coating is not more than 1mm.

**Package: Part A 20kg/pail, Part B 20kg/pail;**

**Ratio of Material Weight during Application as Part A: Part B=10:3**

## Material Storage

In the unopened case, the storage period is 12 months from the date of production.

The storage temperature is 10~40°C .

For unused materials, do not expose them to high humidity and keep them sealed.

For materials connected to the pump body in the construction site, as much as possible, the unused materials should be kept air-tight and dry to ensure their chemical properties.

Stock drums should be stored on freight pallets, avoiding direct contact with the warehouse floor.

## Notes

The following restrictions must be observed:

- Strictly in proportion to the preparation.
- Apply coating only when the substrate temperature is at least 3 °C above the dew point.
- Do not apply coating if the substrate is wet or may become wet.
- The paint of component A that is not used up should be sealed and stored after nitrogen filling.
- Do not apply coating if the weather deteriorates significantly or is not conducive to applying or curing.
- The coating is made of 100% solid content, it is allowed to add less than 5% of the total amount of special diluent for dilution on site construction.
- Good ventilation should be ensured in the construction of confined Spaces.

## Safety Specification

Please refer to the MSDS safety specification for this material. All relevant personnel are required to read and understand all relevant safety instructions provided by MSDS. Wear all personal protective equipment to ensure worker health and safety.

## Physical Properties

Item No.	Testing Item	Testing Standard
1	Surface Dry /h	$\leq 2$
2	Operation Period, min	20-30
3	Tensile Strength, Mpa	$\geq 16$
4	Elongation , %	$\geq 450$
5	Tearing Strength , kN/m	$\geq 45$
6	Shock Resistance , kg·m	$\geq 1.0$
7	Adhesion Force, Mpa	$\geq 3.0$ (or the substrate is damaged)

The above data are the test results of laboratory samples prepared and placed at room temperature for 7 days.

## Declaration

This manual is based on the accumulation of our experiment and experience. With the improvement of the product, this manual may be modified without prior notice. Please keep in touch with us for timely update.