

Liqubain™ 1H

TWO-COMPONENT SPRAYING-APPLIED POLYUREA COATING

Technical Data Sheet



✓ DESCRIPTION

Single-component hand-apply polyurea coating has high mechanical properties and elasticity, a modulus that matches that of concrete, and good weather resistance. After it is cured, the film still has an elongation of at least 100% or more under long-term freezing conditions at -45 ° C.

✓ PRODUCT FEATURES

- ◆ Single component, curing with the moisture of the air, easy to construct;
- ◆ The coating is compact without joint;
- ◆ The one time construction thickness can be 0.5-1.0mm and not easy to flow in vertical construction;
- ◆ Good water resistance, good wear resistance and excellent elasticity;
- ◆ Good weather resistance and corrosion resistance;
- ◆ Do not content heavy metal, green and environmental protection;
- ◆ Serve for a long time in the temperature from - 35 ° C ~ 80 ° C.

✓ APPLICATIONS

It is mainly used for exposed waterproof, protective, anti-corrosive functional elastic coatings, especially for high-deformation nodes with waterproof and stress-concentrated detail node areas. Used in long-lasting waterproofing projects.

- ◆ Exposed elastic waterproof coating for house construction.
- ◆ Waterproofing of various concrete detail node areas.
- ◆ Elastic coating for anti-seepage of various joints such as hydraulic joints and cracks.
- ◆ Exposed waterproof and wear-resistant elastic coating for traffic bridges, flyovers, and air passages.
- ◆ Metal structure roofing with elastic coating for waterproofing.
- ◆ Waterproof of various pools.
- ◆ Use of various cement mortar liquid cement.
- ◆ Elastic coatings for other kinds of waterproof, anti-corrosion, wear-resistant floor, protection and other uses.

✓ CONSTRUCTION CONDITION

- ◆ Do not mix and stir with cement mortar.
- ◆ Do not immerse it in thick or hot strong acid liquid for a long time.
- ◆ In general, do not construct when the base temperature is lower than + 5 °C, or the base temperature is higher than + 50 °C; do not construct when the base temperature is 3 °C

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- lower than the site temperature.
- ◆ Do not construct under conditions where there is dew on the base, or reverse water pressure emerges from the concrete base, or there is clear water on the base.

Performance Parameter

Meets the requirements of Q / SJSJK004, and JC / T2435-2018 type II

No.	ITEM	REQUIREMENT	TYPICAL VALUE
1	Component	One-component	One-component
2	Density, g/ml	1.0±0.1	1.10
3	Surface drying time , TFT, h	≤ 3	1
4	Fully drying time , h	≤ 6	4
5	Tensile Strength, Mpa	≥ 15	22
6	Elongation at break, %	≥ 300	505
7	Low temperature -45 °C elongation, %	≥ 100	260
8	Tear strength, N/mm	≥ 40	56
9	Drawing adhesive strength (with primer),MPa	≥ 2.5	3.2
10	Peel adhesive strength (with primer),N/mm	≥ 2	4.1
11	Peel strength after immersion in high and low temperatures, N/mm	≥ 1.5	2.4
12	80 °C heat treatment, 168h	good	good
13	2% sulfuric acid treatment (soak for 168h)	good	good
14	2% sodium hydroxide treatment (soak for 168h)	good	good
15	3% sodium chloride treatment (soak for 168h)	good	good
16	No. 0 diesel (168h soak)	good	good
17	Artificial weathering (QUVA2000h)	Does not crack	Does not crack
18	Thermal emissivity	0.80	0.85
19	Light reflectivity	0.82	0.83

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✓ **CONSTRUCTION NOTES**

Refer to the single-component hand-apply polyurea coating construction technical procedures, it is very important to clean and construct the substrate before construct the single-component polyurea coating.

- ◆ For the concrete substrate, it is required to remove (such as grinding) the oil, laitance, and loose materials on the substrate, and then apply the primer such as polyurea primer on the concrete substrate and a polyurea putty to repair the substrate if necessary.
- ◆ For metal surfaces, it is required to remove rust to 2.5a level, and then apply a layer of solvent-free special polyurea primer.
- ◆ For aluminum alloy and galvanized surfaces, it is recommended to use the primer for stainless steel.
- ◆ For glass, glazed ceramics and stone surfaces, a transparent primer is recommended.
- ◆ After the substrate is constructed as above, should construct the single-component hand-apply polyurea coating at a specified time (for example, 25 ° C, 55% humidity, 3-15 hours after the primer); in summer when it is in high temperature, it is required to apply the polyurea in 2-6 hours after the primer construction; and in winter when it is in low temperature, it is required to apply the polyurea in 6-18 hours after the

primer construction.

- ◆ When the product is opened and put in a open situation, it shall be applied within 1 hour. The remaining materials shall be sealed in time to avoid contact with water or moisture, and shall be used up as soon as possible. For materials that are not used up in time, if the viscosity is obviously thickened, it is not allowed to use them by dilution, and should be scrapped.
- ◆ It takes about 3-4 hours for tack free drying and 6-24 hours for fully drying after construction. Tack free drying and fully drying time are affected by site temperature, humidity and construction thickness. During the curing time, the coating film shall not be step on or touched with water.
- ◆ This product can be constructed for several times to meet the requirements of construction thickness. The next construction can only be carried out after the first coating is fully dry. It is forbidden to construct for more than 1.0mm in thickness for one time, otherwise it will cause poor curing.

✓ **CONSTRUCTION TOOLS**

Can be applied by hand operation, such as scraping with a scraper, brushing with a short hair brush, or roller coating with a strong short hair roller; it also can be sprayed by a special machine.

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✓ **RECOMMEND USAGE**

About 0.5 -2kg /m² , and the thickness of one-time construction is about 0.2-1.0mm.

✓ **Packing**

5kg/pail, 20kg/pail

✓ **STORAGE AND TRANSPORTATION**

- ◆ Avoid collisions during transportation and require handling smoothly. The storage period is 6 months when stored in a cool environment of + 27 °C.
- ◆ It should be kept away from fire sources and high temperatures, and should not be exposed to the sun. Construction sites are required to have the necessary fire protection equipments. It is required to keep it away from children. The waste is request to be handled by a professional waste handling company. The solidified waste can be treated as normal rubber waste.

- ◆ The material is a thick slurry liquid or an approximately paste-like material. After construction, it absorbs moisture in the air and solidifies into an elastomer film. Protective glasses, work clothes and shoes and hats are required for construction operations. During the construction, it is avoided contact with the skin, and once in contact with the skin, it is recommended to wash with warm water and detergent, if necessary, wash with a plastic brush or a steel ball. If inadvertently splashed into the eyes, need to wipe immediately and rinse with plenty of water, and go to the hospital for help.