

## POLYUREA SPRAY ELASTOMER

### JSU SERIES POLYUREA SPRAY ELASTOMER

Polyurea Spray is a very versatile coating system for corrosion resistance, waterproofing as well as abrasion protection.

JSU series polyurea spray elastomers are based on reaction-injection molding (RIM) technique and the success of amine-terminated polyether production, providing consistent seamless coating. It contains no solvents and is not affected by moisture or temperature conditions.

#### Value added features

- \* Fast reactivity and cure without catalyst
- \* 100% solid formulations without solvents, thus environment-friendly
- \* Extraordinary physical properties which can be adjusted in a wide range
- \* Excellent adhesion to a wide variety of substrates for properly formulated systems
- \* Resistant to chemicals and extended durability, even in extreme environmental conditions
- \* Different colors are available
- \* Relatively moisture and temperature insensitive during application
- \* Thanks to their short gel time, they can be applied on surfaces with any shapes without sagging.

#### Advantages( Polyurea vs. Epoxy resin)

▼much better corrosion-resistant property and better tenacity, while epoxy is hard and crispy. Polyurea has higher hardness and tensile strength.

▼Better chemical-resistance.

▼elasticity, comfortable for people to walk on.

▼extended durability, guarantee 30 years life.

▼fast cure, can be walk on in seconds.

#### Options

##### JSU-1 Waterproof Spray Elastomer

This product can be used for waterproof in roof, tunnels, bridges, reservoirs, swimming pools and silos. JSU-1 contains compound that increases gel time, therefore the product will have better permeability and adhesion to the surface.

##### JSU-2 Floor-used Spray Elastomer

It is especially used in indoor, factory, vehicle part place where have requirement of flam-retardant. It can also provide a protective coating for concrete surfaces ,etc.

##### JSU-3 Abrasion-resistant Spray Elastomer

JSU-3 has high hardness and abrasion resistance, it is extensively used on the floor and walls of bridges and houses.

#### JSU-4 Collide-resistant Spray Elastomer

JSU-4 has higher hardness and good collide-resistance. Therefore, it shows excellent performance in coating of structures such as chemicals, oil, pipelines, and tanks.

#### JSU-5 Corrosion-resistant Spray Elastomer

JSU-5 has better corrosion-resistance. It offers a protective lining for chemical tanks and pipes with high demand of corrosion-resistance.

#### Properties

	JSU-1	JSU-2	JSU-3	JSU-4	JSU-5
Solid content/%	100	100	100	100	100
V.O.C/%	0	0	0	0	0
Density/(kg/L)	1.07	1.10	1.07	1.09	1.07
Viscosity@25 /cps					
A component, Approx.	500	500	500	400	350
B component, Approx.	500	400	400	500	350
Cure times					
Pot life /s	<5	<5	<25	<10	<10
Tack-free time/s	12~20	12~20	50~60	50~80	12~20
Post cure/hr	12	12	12	12	12
Recoat/hr	0~12	0~12	0~12	0~12	0~12
Clean up solvent	JSX- JSD				
Tensile strength /Mpa	10	11~15	8-12	25-40	10-14
Elongation /%	400±50	200±50	250±50	10~100	200±50
Hardness /shore A	80±5	95±5	85±5	95±5	90±5
Hardness /shore D	40±5	50±5	40±5	65±5	50±5
Tear strength/(KN/m)	35±5	45±5	40±5	75±5	50±5
Abrasion resistance (1000rev,H-18wheels) /(mg/kg)	<110	<50	<110	<110	<110
Chemical resistance	good	excellent			
Permeability of water (0.3MPa)	Water resistant				
Compliance at -30	curving without split				

## Applications

### Corrosion resistant

- Tank lining: oil factory, chemical factory, electric factory, etc.
- Pipe/pipeline lining: petroleum pipe, chemical pipes, water pipe, natural gas pipe, city heat addition, Sour wash slot., electroplate slot....  
Concrete coating
- Skidproof deck of offshore drilling platform, warship or boat deck, cabin floor
- Floor/wall/ceiling coating in workshop, warehouse, kitchen in food industry, pharmaceutical industry ...  
Truck Bed Liners, railcar lining, track container

### Waterproofing & Thermal insulation materials

- Protective covering for polyurethane foam roofs.
- Pond/ditch/lagoons/reservoirs/swimming pools/cooling tower
- Roofs, tunnels, bridges, tanks, manhole & sewer lining, aquarium lining, underground projects...
- Foundation coating, roof coating
- Coating and lining for glass fiber reinforced products

### Abrasion resistant & Collide resistant

- Buoys & Fenders
- Truck bed liners , railcar lining, track container
- Abrasion resistant liner in mining area
- Tank coating
- Storage/shipping container
- Collide resistant material

### Theme Park & Decorative Design

- Theme Parks use polyurea as a protective coating over foam
- EPS foam and other structures to create ornamental building fascia.  
Themed characters, artificial rocks, pools and environments, artificial landscapes, stage

### Industrial flooring & Sports facilities

- Indoor/factory/vehicle parts where flam-retardance is required
- Material surface coating
- Playgrounds and race tracks
- Tennis court, basketball court, and other courts

### Storage

Shelf life is six months minimum when stored at 59°F~158 °F and dry conditions. Like most construction materials, must be stored in a dry, well-protected and suitable storage environment. Keep containers sealed.

**Note**

JSU series are aromatic polyurea, therefore, tiny change in color will occurs a periode of time after the application, which, however, will not effect the property.