

# SPUA-501 Abrasion Resistance Lining

## PRODUCT INFORMATION

### PRODUCT DESCRIPTION

SPUA-501 is a 100% solid, fast set, spray-applied, two component aromatic polyurea elastomer. The system consists of the A component, a quasi-prepolymer rich of free NCO, and the B component, a mixture of polyetheramine, amine extenders and other additives. The unique polyurea chemistry allows this material to be tolerant of moisture and lower temperatures during application. This means that high humidity and hidden moisture in concrete has minimal effect on the application of this product. The coating system cures so fast that the facilities can go into service immediately.

- A higher abrasion resistance than carbon steel
- Outstanding toughness, durability, and abrasion resistance
- Seamless, flexible, slick and non-porous
- Superior weatherproofing and chemical resistance
- Fast cure/ short downtime for high application efficiency.
- Moisture and temperature insensitivity during processing
- High thermal stability
- Extraordinary physical properties
- Excellent bond strengths
- 100% solids, No VOC's and odorless

### RECOMMENDED USES

Designed for use as a impact resistant, abrasion resistant lining system for mining industry. Ideally suited for use in various facilities, including:

- Hopper car
- Conveyors
- Filler equipments
- Slurry tanks

### PRODUCT CHARACTERISTICS

<b>Color:</b>	<i>Optional</i>
<b>Solids:</b>	<i>100%</i>
<b>VOC(calculated):</b>	<i>0</i>
<b>Shelf Life:</b>	<i>6 months, unopened at 15~40°C</i>
<b>Flash Point:</b>	<i>&gt;200°C</i>
<b>Gel time:</b>	<i>10 seconds</i>
<b>Mix Ratio (by volume):</b>	<i>1 : 1</i>
<b>Recommended Spreading Thickness:</b>	<i>2~10mm</i>

Drying time is temperature, humidity, and film thickness dependent..

### PERFORMANCE CHARACTERISTICS

<b>Tensile Strength:</b>	<i>18MPa</i>
<b>Tensile Elongation:</b>	<i>300%</i>
<b>Tear Strength:</b>	<i>72KN/m</i>
<b>Durometer Hardness:</b>	<i>Shore A-85~95</i>
<b>Abrasion Resistance:</b>	<i>2.3mg</i>
<b>Electric Strength:</b>	<i>21Mv/m</i>
<b>Impact Resistance:</b>	<i>1.5Kg•m</i>
<b>Specific Gravity:</b>	<i>1.02g/cm<sup>3</sup></i>
<b>Electric Strength:</b>	<i>26Mv/m</i>

### ORDERING INFORMATION

#### Packaging:

- Part A: 220 kilogram drums
- Part B: 210 kilogram drums

#### Freight Classification:

Coating Solution Non-Flammable Liquid

### RECOMMENDED PRIMERS

#### Steel:

SPUA-D100 Anticorrosive Primer @ 5~6 sq.m./1 Kg per coat

#### Concrete:

SPUA-D400 Sealing Primer @ 8~10 sq.m./1 Kg per coat

**Others:** Contact us for a recommendation.

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## APPLICATION INFORMATION

### SURFACE PREPARATION

Surface must be properly prepared. Remove all oil, dust, grease, dirt, loose, and foreign materials to ensure adequate adhesion.

#### Steel

Surfaces must be a "near white metal" blast to SIS-Sa 2 1/2. with a 3 mil profile. Prime with SPUA-D100 Anticorrosive Primer prior to spraying. Steel surfaces shall be dry and clean, free from any dirt, grease, oil and other contamination before priming and spraying.

#### Concrete

Concrete surfaces prepared according to NACE standard RP0892-92. Allow substrate to dry thoroughly prior to priming (minimum substrate of new concrete cure is 28 day). Remove all from loose dust or other foreign matter and prime with primer SPUA-D400 Sealing Primer at 1-2 coats prior to spraying.

### CURE TIME

**Surface dry (25°C)**     $\leq 1$  minute  
**Hard film (25°C)**     $\leq 10$  minutes  
**Recoat time**            *Minimum unlimited*  
                                  *Maximum  $\leq 3$  hours*

Due to rapid cross-linking, recoating must be done as soon as the first coat is dry.

If maximum recoat time is exceeded, abrade surface before recoating.

Consult us for recommended recoat procedures.

### APPLICATION CONDITIONS

#### Temperature:

Air and surface: -20°C~40°C  
                                  At least 3°C above dew point

Relative humidity:  $\leq 90\%$

Materials must be preheated to 21°C prior to use.

Contact us for detailed application information.

### CLEAN UP INSTRUCTIONS

Clean tools and equipment immediately after use with SPUA-PC Proportioner Cleaner or SPUA-GC Spray Gun Cleaner.

Consult *Plural Component Equipment Guide* for specific information.

### APPLICATION EQUIPMENT

#### Plural Component Heated Spray Equipment (Required)

Equipment.....*Gusmer H-20/35*  
 Gun.....*GX7 DI, GX7-400, or GX-8*  
 Fluid Pressure.....*50--60kg/cm<sup>2</sup>*  
 Air Pressure..... *$\geq 7$ kg/cm<sup>2</sup>*  
 Inlet Strainer Screen.....*30mesh*  
 Gun Screen.....*80mesh*  
 Heaters and heated hose.....*65°C*  
 Mix Ratio.....*1:1*

If specific application equipment is listed above, equivalent equipment may be substituted.

Contact us for specific information.

### STORAGE CONDITIONS

- The A component is affected by moisture and must be protected from moisture contamination. Containers are factory sealed with an inert gas to prevent contamination. Keep all containers tightly closed during storage. For further storage after opening, containers must be purged with nitrogen gas or dry air and tightly sealed to protect from moisture contamination.

- Store drums and pails in a cold, dry and ventilated location between 15°C and 40°C

- Keep away from rain and sun

- Keep away from fire and heat source

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## APPLICATION INFORMATION

### THINNING

*DO NOT THIN!*

### MIXING INSTRUCTIONS

Thoroughly mix container of B component with an air-driven power mixer for a minimum of 5 minutes prior to application.

### SAFETY PRECAUTIONS

Consult MSDS sheet before use. Use proper ventilation and respiratory equipment when spraying. Protect skin and eyes. Follow disposal methods in accordance with local and federal disposal regulations.

This product is intended for industrial use by properly trained professional applicators only.

Published technical data and instructions are subject to change without notice. Contact Us representative for additional technical data and instructions.