

## Ultralane<sup>®</sup> 722SK-A/B

### WATER CLEAR POLYURETHANE CONFORMAL COATING

Ultralane<sup>®</sup> 722SK-A/B is a low viscosity liquid polyurethane system that produces water-clear coating or castings with tough, elastic properties and very good chemical and environmental resistance. The system is aliphatic in nature and provide excellent light transmission across a wide spectrum and resists yellowing under UV exposure. The system is easy to pigment or dye prior to curing to achieve a wide range of colors and visual effects.

The Ultralane<sup>®</sup> 722SK-A/B system is MOCA & TDI free. It can be supplied in custom colors and viscosities or in harder or softer versions. Please contact us to discuss your application if you'd like to receive samples of a custom color or to discuss the development of a custom variant that would be suitable for your application.

#### **SUGGESTED APPLICATIONS:**

- LED encapsulant, protective coating for decorative and optical components
- Electric Encapsulation of sensors and imaging devices
- Bonding glass and other transparent materials

| <b>HANDLING PROPERTIES</b>          | <b><u>VALUE</u></b>  | <b><u>TEST METHOD</u></b> |
|-------------------------------------|--|---------------------------|
| <u>Ultralane 722SK-A (resin)</u>    |  |                           |
| Visual Appearance                   | Clear liquid   |                           |
| Viscosity, Part A, at 25°C          | < 20 cps   | ASTM D-2393               |
| Percent Solids (non-volatile %)     | 50% ± 5%   | ASTM D-92                 |
| <u>Ultralane 722SK-B (hardener)</u> |  |                           |
| Visual Appearance                   | Clear to slightly yellow liquid  |                           |
| Viscosity, Part B, at 25°C          | < 20 cps   | ASTM D-2393               |
| Percent Solids (non-volatile %)     | 50% ± 5%   | ASTM D-92                 |
| Mix Viscosity                       | < 20 cps   | ASTM D-2393               |
| Mix Ratio by weight and volume:     | 1A : 1B  |                           |
| Gel Time, 12 gram mass              | > 70 minutes   |                           |
| Gel Time, 100 gram mass             | > 90 minutes   |                           |
| Cure Schedules:                     | 24 hours at 25°C (Full properties may take up to 7 days at room temperature) or gel at 25°C for 1-2 hours + 4-8 hours at 80°C. |                           |

| <b>CURED PROPERTIES</b>       | <b><u>VALUE</u></b>  | <b><u>TEST METHOD</u></b> |
|-------------------------------|----------------------|---------------------------|
| Hardness, Shore D             | 23D                  | ASTM D-2240               |
| Hardness, Shore A             | 80A                  | ASTM D-2240               |
| Thermal Shock, -50°C to 120°C | 10 cycles, no damage | ASTM D1674                |

# Product Datasheet



|  |                             |              |
|--|-----------------------------|--------------|
| Surface Resistivity, ohm               | 1 x 10 <sup>15</sup>        | ASTM D-257   |
| Volume Resistivity, ohm-cm             | 1 x 10 <sup>15</sup>        | ASTM D-257   |
| Weatherometer, Xenon                   | >2000 hours – no change     | SAE J1960    |
| Weatherometer, QUV-A                   | >2000 hours – no change     | SAE J2020    |
| Weatherometer, QUV-B                   | >1000 hours – no change     | SAE J2020    |
| Florida Test, Direct Inland, 45° South | Passes 2 years of exposure  | SAE J1976    |
| Arizona Test, Direct weathering,       | Passes 2 years of exposure  | SAE J1976    |
| Heat resistance (250 hrs @ 80°C)       | No change in gloss or color | MS-CG12      |
| Flammability                           | Self-extinguishing          | ISO 3795     |
| Salt Spray Resistance                  | >2000 hours @ 38°C, 5% Nail | ASTM D117-95 |

## **PROCESSING AND APPLICATION INSTRUCTIONS :**

To use, weigh Part A and Part B into a clean mixing container. Mixing containers should preferably be made of polypropylene, polyethylene, glass, or non-corroding metal. (Stainless steel, aluminum, etc.). Always use weighing equipment having accuracy that is  $\pm 1\%$  or less of the smallest quantity that you will be weighing. Blend Part A & B thoroughly using a spatula or stirring stick for at least 2 minutes using a kneading motion. Scrape the bottom and sides of the mixing container carefully and frequently to produce a uniform mixture. For Bubble-free parts, vacuum degas after mixing.

## **PACKAGING AVAILABLE:**

This product is available in a variety of package sizes including quarts, gallons, and 5-gallon pails. It can be also supplied in dual syringe cartridges with 50ml, 200ml, or 400m volumes. The dual syringe cartridges eliminate the need for hand mixing and can allow for air free mixing and application.

Please call use with any special packaging requests or for information on custom kitting.

## **STORAGE GUIDELINES:**

Store these materials in a clean, cool and dry environment in their tightly closed original containers. Protect from extended exposure to temperatures below 15°C (59°F). Crystallization may occur if the material is exposed to cold for extend periods. If this occurs, heat the entire container for 4 hours at 70°C to re-liquefy the material. Allow to cool to ambient temperature prior to using. Also protect the EpoPro 104A&B from exposure to moisture or high humidity. Tightly re-seal containers after use. If the recommended storage conditions are observed the products will have a minimum shelf-life of 12 months from the date of shipment.

## **HANDLING PRECAUTIONS:**

Mandatory and recommended industrial hygiene procedures should be followed whenever these products are being handled and processed. For additional information please consult the corresponding material safety data sheets.

## **PERSONAL HYGIENE:**

**Ultralane 722SK-A**

**WARNING!** Harmful if inhaled. Causes skin and eye irritation. Causes allergic skin and respiratory reaction. Avoid contact with eyes, skin, and clothing. Avoid breathing vapor or mist. Avoid prolonged or repeated contact with skin. Keep container closed. Use with adequate ventilation. Wash thoroughly after handling.

#### **Ultralane 722SK-B**

**WARNING!** In accord with good industrial practice, handle with due care. Could cause eye, skin, and respiratory irritation. Prolonged or repeated skin contact or inhalation of vapors may cause allergic skin or respiratory reactions. Harmful if inhaled or swallowed. Avoid contact with eyes, skin, or clothing. Wear eye protection and impervious gloves when handling. Avoid breathing vapor or mist. Keep containers closed when not in use. Use only with adequate ventilation. Wash thoroughly after handling.

#### **FIRST AID**

In case of contact:

**Skin** – Immediately wash skin thoroughly with mild soap and water. Remove contaminated clothing and wash before reuse. Destroy contaminated shoes and other articles made of leather.

**Eyes** – Immediately flush eyes with plenty of water for 15 minutes and get prompt medical attention.

**Inhalation** - Remove person to fresh air. Administer oxygen or artificial respiration if necessary. Call a physician.

**Ingestion** - Do not induce vomiting. Dilute with plenty of water and contact physician immediately. Never give anything by mouth to an unconscious person.

#### **DISCLAIMER:**

**IMPORTANT:** The following supercedes Buyer's documents. **SELLER / MANUFACTURER MAKES NO REPRESENTATION OR WARRANTY, EXPRESS OR IMPLIED, INCLUDING OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.** No statements herein are to be construed as inducements to infringe any relevant patent. Under no circumstances shall Seller / Manufacturer be liable for incidental, consequential or indirect damages for alleged negligence, breach of warranty, strict liability, tort or contract arising in connection with the product(s). Buyer's sole remedy and Seller's sole liability for any claims shall be Buyer's purchase price. Data and results presented are based on controlled or laboratory work and must be confirmed by Buyer by testing for its intended conditions of use. The product(s) has not been tested for, and is therefore not recommended for, uses for which prolonged contact with mucous membranes, abraded skin, or blood is intended; or for uses for which implantation within the human body is intended

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