

# POLYASPARTIC POLYUREA

## PA 1070

### Product Description:

**ARMOR** Polyaspartic Polyurea PA 1070 is a 2 component, UV resistant polyaspartic based polyurea system. This new generation aliphatic polyurea coating system is ideal for applications which require excellent color stability. Polyurea coatings are different in both application and performance from spray applied systems. While this system can be applied as a thin coating, it can also be used as a top layer on top of the existing coating. Additionally, it can be also used to increase the corrosion resistance of the metal substrates. It has very high scratch and impact resistance. After the product is completely cured, it forms a glossy, smooth top layer. It can be applied with roller, brush or an airless system.

### Features:

- Excellent color stability and UV resistance
- Suitable for exterior and interior applications
- Long working and gelling time
- Fast service time (open to pedestrian traffic after 2-4 hours)
- VOC and odor free
- High abrasion and impact resistance
- Excellent corrosion resistance
- High hydrolysis resistance
- Perfect thermal stability
- Wide color range

### Application Areas:

- UV and color stable top coat on existing base coat
- High color stability and gloss requiring swimming pools
- Terraces and roofs
- Water parks, playgrounds and decorative applications
- Wind turbines

### Surface Preparation and Application:

- Polyaspartic coating adheres perfectly to dry and clean surfaces like metal and concrete. Application surface should be clean and smooth, free of any dirt, gap or particles. If there is already a coating on the surface, an appropriate polyurethane or epoxy based primer should be applied. After the primer is cured, product could be applied.
- Amine resin component should be stirred very well to prevent pigment settling to achieve color homogenization. Be careful about the component mixing ratios and avoid bubbles during the mixing process. Mixing process should be between 1-1.5 minutes until the homogenization is obtained. After the mixing product should be rested for 2-3 minutes before application.
- To achieve appropriate coating thickness, application should be applied to all direction ( from south to north, east to west) with a roller or brush. If a second layer is needed, it must be applied within 4 hours after the first layer is applied.

- Alternatively airless gun can be also used for its application.
- Wait 2 hours for light pedestrian traffic and 24 hours for full service time. As curing time is affected by temperature and humidity, check real cure time on the site of application.
- All application equipments must be cleaned with acetone, MEK, MIBK and xylene like solvents after application.

#### Storage and Shelf Life:

Polyurea components are sensitive to moisture. Keep polyurea components in tightly closed containers. Mix amine resin before application. Store polyurea components between 20 -30 °C. It has 9 months of storage time, if stored according to stated conditions.

#### Safety and Disposal:

Avoid breathing vapors. Avoid contact with skin and eyes. Take precautions during application. Wear suitable protective clothing, gloves and eye/ face protection. Adequate ventilation of the working area is recommended. Refer to SDS sheet prior to use.

#### Technical Features:

#### COMPONENT PROPERTIES

	Unit	Method	HDI Prepolymer (A)	Amine Resin (B)
<b>Density (25°C)</b>	gr/cm <sup>3</sup>	ASTM D 1217	1.15-1.17	1.07-1.1
<b>Viscosity (25°C)</b>	mPa.s	ASTM D 4878	720-750	1000-1100
<b>Shelf life</b>	-----	-----	9 months	9 months

**PHYSICAL PROPERTIES**

	Method	Datas
<b>Chemical structure</b>		A: HDI Prepolymer
		B: Amine Resin
<b>Mix ratio (by weight)</b>	--	40:60 A:B
<b>Consumption (g/m<sup>2</sup>)</b>	--	250-500
<b>Recommended thickness (μm)</b>	--	100-250 (for each layer)
<b>VOC content (%)</b>	ASTM D1259	0
<b>Solid content (%)</b>	ASTM D2697	90
<b>Gel time (sec)</b>	--	30-35
<b>Tack free time (sec)</b>	--	50-65
<b>Pedestrian traffic time (hr)</b>	--	0-12
<b>Full curing time (hr)</b>	--	24
<b>Tensile strength (MPa)</b>	ASTM D638	>30
<b>Elongation at break (%)</b>	ASTM D638	4-6
<b>Hardness (Shore D)</b>	ASTM D2240	55±5
<b>Abrasion resistance (mg)</b>	EN ISO 5470-1	<15 (H22, 1000 cycle)

**ARMORSIL MANUFACTURING INCORPORATION**

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