



Aliphatic Pure Polyurea Coating System

POLYMOR AL 103

1 – PRODUCT DESCRIPTION

POLYMOR AL 103 is a %100 solid, fast curing, 2 component, UV light resistant, aliphatic pure polyurea system. Its formulation is designed for maintaining high color stability and preventing discoloration where surfaces are exposed to sun light continuously. While it can be directly used on most surfaces, it also can be used as a top layer on epoxy, polyurethane and polyurea coatings. After fully cured, it forms a coating material with high tensile strength and abrasion resistance. For protection and coating purposes, it can be applied on concrete, metal, wood, ceramic and PU foam. It can form strong films in wide variety of thicknesses. The material must be applied utilizing high pressure, heated plural component spray proportioning equipment.

2– FEATURES

- Excellent UV light resistance
- %100 color stability
- Fast reactivity and fast return to service time
- %100 solid, VOC free, no odor
- Very good tensile and structural strength
- Anticorrosive
- High Hydrolysis resistance
- Excellent temperature stability
- Seamless and jointless coating with high water resistance
- Excellent adhesion on concrete, steel, aluminum, plastics, wood, etc.
- Temperature and humidity insensitive
- Variable application thickness is possible
- Broad color spectrum

3– APPLICATION AREAS

- At exterior coatings where color stability is required
- Swimming pools and water parks
- Roofs, garages and parking lots
- Airports, shipyards and marina
- Wind energy plants
- Amusement parks and playgrounds
- Decorative designs
- Furniture industry

4 – SURFACE PREPARATION & APPLICATION

Surface preparation strongly affects coating performance. Concrete substrates must be prepared mechanically using abrasive blast cleaning to remove cement laitance and achieve an open textured surface. Weak concrete must be removed and surface defects such as voids must be fully exposed. Repairs to the substrate, filling of blowholes/voids and surface levelling must be carried out using appropriate products. The application surface has to be primed in order to achieve an even surface and good adhesion.

- All dust, loose and friable material must be completely removed from all surfaces before application of the product, preferably by brush and/or vacuum. For application pull off strength of the surface should be min. 1.5 N/mm² and concrete residual moisture should be max. 6 %.
- Isocyanate prepolymer and amine resin must be applied using a 2-component high pressure and heat spray machine. The machine should be able to spray the components in 1:1 volume ratio. In order to achieve good performance, the temperature and pressure should stay same during the application.
- Before application, amine component must be stirred using a barrel mixer.

5- PACKAGING

- 200 kg barrel (Amine side)
- 210 kg barrel (Iso side)

6- SHELF LIFE & STORAGE CONDITIONS

Polyurea components are sensitive to moisture. Keep polyurea components in tightly closed containers. Mix amine resin before application. Store the polyurea components between 20-30°C. 9 months of storage time, after production date.

7- SAFETY

Contains MDI. 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.

8- TECHNICAL FEATURES

Component Properties

	Unit	Method	Isocyanate Prepolymer (A)	Amine Resin (B)
Density (25°C)	gr/cm ³	ASTM D 1217	1,11±0,03	1,02±0,02
Viscosity (25°C)	mPa.s	ASTM D 4878	800-1000	600-1000
Shelf life	-----	-----	9 months	9 months

Process Properties

	Unit	Datas
Mix Ratio	By volume	A= 100 B= 100
	By weight	A= 112 B= 100
Process temperature(°C)	°C	A: 70-80 B: 70-80
Process pressure (bar)	Bar	A: 150-200 B: 150-200

Physical Properties

	Method	Datas
Chemical structure		A:Isocyanate Prepolymer B: Amine Resin
VOC content (%)	ASTM D1259	0
Solid content (%)	ASTM D2697	100
Gel time (sec)	--	15-30
Tack free time (sec)	--	45-60
Recoat time (hr)		0-12
Density (gr/cm3)	ASTM D792	1,05-1,08
Tensile strength (MPa)	ASTM D638	>16
Elongation at break (%)	ASTM D638	≥400
Hardness (Shore D)	ASTM D2240	40-45
Abrasion resistance (mg)	EN ISO 5470-1	<33 (H22, 1000 cycle)
Pull off strength (N/mm2)	ASTM D4541	Concrete: ≥2,5 Steel: ≥6

DISCLAIMER

The technical data contained herein is based on our present knowledge and experience and we cannot be held liable for any errors, inaccuracies, omissions or editorial failings that result from technological changes or research between the date of issue of this document and the date the product is acquired. Before using the product, the user should carry out any necessary tests in order to ensure that the product is suitable for the intended application. Moreover, all users should contact the seller or the manufacturer of the product for additional technical information concerning its use if they think that the information in their possession needs to be clarified in any way, whether for normal use or a specific application of our product. Our guarantee applies within the context of the statutory regulations and provisions in force, current professional standards and in accordance with the stipulations set out in our general sales conditions. The information detailed in the present technical data sheet is given by way of indication and is not exhaustive. The same applies to any information provided verbally by telephone to any prospective or existing customer.

MORAN İNŞAAT SANAYİ VE TİCARET ANONİM ŞİRKETİ

Head Office: MERKEZ MAH.29 EKİM CAD.VİZYON PARK SİT.A1

BLK.OFİS-106 YENİBOSNA / BAĞÇELİEVLER

Phone : +90 542 239 23 24 - +90 212 603 28 27

Email : trade@morancorp.com

www.morantrade.net

Moran Company is one of the leaders in the Construction-Supplies business sector. It was constructed in 1995, and since then the company strived to reach in its projects a high level of accuracy and great quality with competitive prices in a suitable time interval .

Moran always seeks improvements whether it is an internal improvement or a work related improvement.

Accordingly, Moran has started exporting construction materials and products to the whole market and buying them as well. However, But it is curently buying from the Turkish market due to the tremendous excellence of this market in these products after the scrutiny and scrutiny of the selection of the finest products amid a wide world of manufacturers.

The Company's goal is to enhance the construction segment in the Arab region through providing construction materials with great quality. The Company's engineers have an experience for 27 years which qualifies them to know what works best and to be the leaders in this sector.

MORAN İNŞAAT SANAYİ VE TİCARET ANONİM ŞİRKETİ

Head Office: MERKEZ MAH.29 EKİM CAD.VİZYON PARK SİT.A1

BLK.OFİS-106 YENİBOSNA / BAĞÇELİEVLER

Phone : +90 542 239 23 24 - +90 212 603 28 27 - +20226714242 - +20 122 3131 81 83

Email : trade@morancorp.com

www.morantrade.net