

GENERAL DESCRIPTION:

It is a two-component, flexible, high-reactivity, 100% pure polyurea spray coating material formed as a result of the reaction of isocyanate-based prepolymer and multifunctional amine mixture.

Application Areas

- Roofs
- Terraces
- Industrial surfaces
- Roads
- Parking Lots
- Pipes
- Car bedliners
- Pools

General Properties

- Fast curing
- Seamless coating application
- Application on vertical surfaces
- High mechanical strength
- Chemical resistance
- Corrosion resistance
- Abrasion resistance
- Environmentally friendly (VOC free)

COMPONENTS:

<i>Component</i>	<i>Product Name</i>	<i>Descriptions</i>
Polyamine	POLYUREA 2K A	Polyamine compound
Prepolymer	POLYUREA 2K B	Polyurethane prepolymer

PHYSICAL AND

CHEMICAL PROPERTIES OF COMPONENTS:

<i>Parameter</i>	<i>Unit</i>	<i>B COMP</i>	<i>A COMP</i>	<i>Test method</i>
Density (21°C)	g/cm ³	1.10-1.12	1.00-1.05	DIN 51757
Viscosity (25°C)	mPa.s	500-750	300-500	ASTM D 4878
Solid Content	%	100	100	In house test method

REACTION CHARACTERIS

Service temperature	°C	(-20)-(+120)	Floor
temperature to be applied	°C	10-30	
Application temperature	°C	70-80	

PHYSICAL AND MECHANICAL PROPERTIES OF PRODUCTS:

<i>Parameter</i>	<i>Unit</i>	<i>Value</i>	<i>Test method</i>
Tear resistance	N/mm	30-55	ASTM D 624
Elongation at break	%	500-600	ASTM D 412
Tensile strength at break	N/mm ²	13-15	ASTM D 412
Hardness	Shore A	90-100	DIN 53505

Chemical Resistance

Test Media	Result
Water (%100)	+
2,2,4 Trimethylpentane (%99,8)	+
Ethyl acetate(%99.5)	+
Acetone(%99.5)	+
Acetic acid(%5)	-
Citric acid(%1)	-
Hydrochloric acid(%10)	-
Phosphoric acid (%10)	+
Lactic acid (%90)	+
Sulphuric acid (%30)	-
Stearic acid (%50)	+
Hydrogen peroxide (%3)	+

Test Media	Result
Ethyl alcohol (%95)	+
Isopropyl alcohol (%96)	+
Petrol	+
Bleach (%3)	+
Sodium carbonate (%20)	+
Sodium chloride (%10)	+
Heptane (%97)	+
Hexane (%98)	+
Fertilizer	+
Diesel fuel	+
H ₂ O/sugar	+

Test Media	Result
Ammonium hydroxide (%10)	+
Brake fluid	+
Methanol (%99)	+
Butanone (%99.9)	+
NaOH (%60)	+
Olive oil	+
Propylene carbonate (%99.5)	+
Solid bicarbonate of soda (%0.5)	+
Sodium triphosphate (%100)	+
Anionic surfactant	+

+ Resistant

- Not Recommended

In the test carried out according to the ASTM D 543 standard, 3 separate pieces from the sample are cut in the dimensions specified and kept in the specified chemicals according to the demand for 7 days. Samples are gently shaken every 24 hours. Before and after testing, the weight, size, mechanical and physical properties of the samples are observed and recorded to observe the change.

**PROCESS
CONDITIONS:**

A COMP. (polyamine) and the B COMP. (prepolymer) should be applied using high pressure and temperature spray equipment in order to ensure homogeneous mixture and application. Prior to the application, surfaces must be free from dust, dirt, oil and similar residues that will prevent the material adhesion.

The application temperature should be between 70-80°C, and the application pressure should be between 120 and 200 bar.

Consumption: For 1 mm thickness polyurea coating 1,1-1,2 kg/m²

**HANDLING AND
STORAGE
CONDITIONS:**

Storage: POLYUREA 2K is sensitive to moisture and should therefore be stored in sealed packages.

Shelf life: Can be stored for 12 months in its original sealed packaging at approximately 25°C. Storage at high temperatures shorten the shelf life.

Packaging: Polyamine (A): 200 kg barrel + Prepolymer (B): 220 kg barrel

**NOTICE
REGARDING
SAFETY AND
USAGE:**

Material Safety Data Sheet (MSDS) will be provided to you by **GRADA C.C.** sales representative during the product supply. It is advisable to review this form before handling and use and also to check your own handling, safety and process conditions. It is necessary to dispose of the finished product drums according to MSDS GRADA C.C. commits protecting human health and the environment during the production conditions and customer conditions. So **GRADA C.C.** is always ready to help its customers in this regard. Please contact to your **GRADA C.C.** representative when you need help.

**CONTACT
INFORMATION:**

Grada Yapı Kimyasalları Aş.
Çınardere Mah. Akan Sok. No:15/3 Başoğlu İş Merkezi Pendik/İst

info@grada.com.tr www.grada.com.tr