

ARKAZ POLYUREA 1044

Aromatic UV resistant premium, pure polyurea

DESCRIPTION

ARKAZ POLYUREA 1044 is a 100% solid 2 component, fast curing, flexible, aromatic pure polyurea system, derived from a reaction of an isocyanate prepolymer and an amine terminated resin blend, the system is designed as a waterproofing and floor protective coating for concrete, metal, wood ceramic, geotextile and PU foam substrates, the material must be applied utilizing high pressure, heated plural component spray proportioning equipment and it complies with EN-1504-2 standard requirements.

USAGES

- Swimming pools and portable water tank
- Roofs, Garages, and parking lots
- Airport, Shipyards, and marina
- Wind energy plants
- Amusement parks and playgrounds
- Furniture houseware industries
- Sea water treatment plants

ADVANTAGES

- High tensile strength
- Excellent abrasion resistance
- UV, chlorine and saltwater resistant
- Sprayable, forming a seamless and jointless layer
- High hydrolysis resistance
- Excellent adhesion to concrete, steel, aluminum, plastic, and wood
- Temperature and humidity insensitive
- Variable application thickness is possible
- Broad color spectrum

TECHNICAL DATA

ARKAZ POLYUREA 1044

Typical values

| | |
|--|--|
| VOC Content (ASTM D1259) | 0 |
| Solid Content (ASTM D2697) | 100% |
| Mixed Density @25°C (ASTM D1217) | 99 – 1.03 g/cm ³ |
| Tensile Strength (ASTM D638) | 18 N/mm ² |
| Pull Of Strength (ASTM D4541) | 2.5 N/mm ² Conc. 6 N/mm ² Steel |
| Elongation at Break (ASTM D638) | 350% |
| Shore D Hardness (ASTM D2240) | 45 – 50 |
| Abrasion Resistance (EN ISO 5470-1) | 30 mg (H22, 1000 cycle) |
| Tack Free Time | 15 – 30 seconds |
| Recoat Time | 0 – 12 hours |

USAGE INSTRUCTIONS

1. Surface preparation

Concrete surfaces particularly if new; should be fully cured with a maximum residual moisture should be 6%, clean and free from contamination such as dust, oil, grease, organic growth, release agents and curing compounds.

Prepare concrete surfaces preferably by mechanical methods such as angle grinding to remove laitance, curing compounds and other loose materials to provide a mechanical key for **ARKAZ POLYUREA 1044**.

After preparation, fill all blow holes and surface imperfections using **PIOREP** range or **PIOMORTAR** range as per recommendation.

2. Priming

Prior to the application of **ARKAZ POLYUREA 1044** prime the prepared surface using **PIOPRIME 38**.

Apply **PIOPRIME 38** using a brush, roller or low pressure knap-sack sprayer to the prepared concrete surface at a rate of 9 m² per liter (100-micron coat). Allow the primer to become dry before applying **ARKAZ POLYUREA 1044**. This is typically 18 hours post priming depending on temperature condition.

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Coverage

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2kg/1m²/2mm thick

3. Application

Start spraying continuously the prepared areas without any interruption using a special polyurea high pressure spray proportioning machine for plural heated polyurea components of process temperature varies between 70-80 °C and 180-200 bar process pressure, following the usage instruction of the machine to avoid any material curing which may cause blockage of device or hoses.

ARKAZ POLYUREA AL1070 can be applied 1mm thickness as a top UV protective coat from discoloration over **ARKAZ POLYUREA 1044**.

Minimum thickness recommended to achieve a strong and sound waterproofing is 2 mm.

PACKAGING

ARKAZ POLYUREA 1044 is supplied in set, component A & B.

- **A** 225 kg (Isocyanate)
- **B** 200 kg (Amine)

HEALTH & SAFETY

Before applying **ARKAZ POLYUREA 1044** all safety protections should be worn during application, such as safety goggles and rubber gloves to avoid any harmful accidents, and for additional protection wear one-piece coveralls suit & a respirator to avoid inhaling any of the sprayed foam.

If **ARKAZ POLYUREA 1044** is splashed to skin, it must be washed off by water and soap at once, and if to the eyes seek medical attention immediately.

STORAGE & SHELF LIFE

Keep **ARKAZ POLYUREA 1044** dry and in shaded place of a temperature range 20°C - 30°C, shelf life of the material is 9-months.

TECHNICAL SERVICE

The technical service department of Arkaz is available to assist in the correct and best use of our products, these resources and advice are at your disposal entirely without obligation.

Please contact:
concretedoctor@arkaz.com

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