



Basic Uses & Description:

U-703 Aliphatic Urethane Membrane is a liquid-applied, aliphatic polyurethane waterproofing membrane designed for long-term roof protection. It cures with ambient moisture to form a seamless, elastic, UV-stable membrane that resists yellowing and environmental exposure. A built-in catalyst allows for fast curing and consistent film formation, even when applied at higher thicknesses, making it suitable for exposed roof applications requiring durability, flexibility, and reliable waterproofing performance.

Features:

- UV-stable and resistant to yellowing.
Forms a seamless, joint-free waterproofing membrane.
Fast curing and blister-resistant due to integrated catalyst.
Resistant to water and frost.
Maintains mechanical properties from -30°C to +90°C.
Surface is suitable for light pedestrian traffic once cured.
Easily repairable if mechanically damaged.
White finish provides high solar reflectivity contributing to thermal insulation(-40°C to +90°C).
Suitable for light pedestrian traffic and service access.

Application:

SURFACE PREP:

Use a power washer and wire brush to thoroughly clean surface and ensure it is free from dirt, grease, oil, mold, algae, loose granules, loose paint, rust, excess chalk, and other foreign matter which could affect adhesion. Apply only at temperatures above 40°F and rising with less than 90% humidity and no threat of rain for 48 hours. Surface temperatures should be under 100°F to avoid premature curing. If the roof surface is hot, apply a light water spray to reduce its temperature. Note: EPDM roofs may require aggressive power washing and may need to be cleaned twice to remove all surface contamination. Rinse thoroughly and allow to dry.

PRIMING:

Substrates must be primed with the appropriate primer prior to application of U-703 Aliphatic Urethane Membrane. For concrete substrates, apply the primer at the recommended coverage rate and allow to dry. For metal, polyurethane foam, and bituminous substrates, use primer. Primer selection and consumption depend on substrate condition and porosity. The primer must be fully cured before applying the waterproofing membrane.

PRIMING:

U-703 Aliphatic Urethane Membrane is applied cold by roller, brush, squeegee, or airless spray equipment. The product must be thoroughly mixed before use. Do not thin. Apply the material in two or three coats to achieve the required total dry film thickness. Each coat must be applied evenly and allowed to cure before applying the next layer. Application should proceed without interruptions to avoid cold joints. Typical total consumption ranges from 1.40 to 2.50 kg/m² depending on system requirements, surface condition, and whether reinforcement fabric is used.

Table with 2 columns: TEST PROPERTY and TEST VALUE. Rows include Adhesion to concrete (>290 psi), Tensile Strength (>1,160 psi), Elongation at break (160%), Hardness (Shore A) (>80), SRI Value (104), SR Value (83%), Infrared Emittance (0.89), Water Vapor Permeability (~ 0.51 perms), Service Temp (-22 F to 194 F), Shock Temp (356 F), Rain Resistance Time (1 hour), Light Pedestrian Traffic (18 hours), and Final Cure Time (7 days).





### Handling & Storage:

Clean up with soap and water.

**U-703 Aliphatic Urethane Membrane** has a shelf life of 9 months from the date of production when stored in unopened, original containers. Material must be stored in a dry, cool environment between +5°C and +35°C (41°F to 95°F). Containers should be kept tightly sealed, protected from moisture, direct sunlight, and heat sources. Do not allow material to freeze. Opened containers should be used as soon as possible to prevent moisture contamination.

### Safety:

Causes skin and eye irritation. May cause allergic skin or respiratory reactions. Vapors may be harmful if inhaled. Use only with adequate ventilation and appropriate personal protective equipment. Avoid contact with skin and eyes. Do not breathe vapors or spray mist.

Before handling, read the Safety Data Sheet for required protective equipment and additional safety, health, and environmental information. Refer to the Safety Data Sheet for complete safety and regulatory details. Request Safety Data Sheet: [info@koolcoatsusa.com](mailto:info@koolcoatsusa.com)

### Packaging Sizes:

**U-703 Aliphatic Urethane Membrane** comes in 5 gallon and 1 gallon containers.

### Maintenance:

The life of the roof may be extended by regularly scheduled maintenance. A roof should typically be inspected at least twice a year. The roof immediately needs to be inspected following severe weather and extraordinary maintenance on roof-mounted equipment.

### Weather Restrictions & Cure Time:

Application temperature must be between +5°C and +35°C. Do not apply during rain, fog, or when condensation is present or expected. Avoid application during extreme heat or direct sunlight on hot substrates, as this may affect film formation.

Relative humidity may influence curing behavior and surface finish. Adequate ventilation must be provided during application and curing.

U-703 cures by reaction with atmospheric moisture. Under normal conditions (20°C and 50% relative humidity), the membrane becomes rain resistant after approximately 1 hour and can accept light pedestrian traffic after approximately 18 hours. Full cure is achieved after 7 days.

Lower temperatures and reduced humidity will extend curing times, while higher humidity may accelerate surface curing and affect final appearance.