

Topkrete Polyurea

Two-Component Spray-Applied Waterproofing & Protective Coating

Description

Topkrete Polyurea is a high-performance, two-component spray-applied elastomeric coating designed for waterproofing, corrosion protection, and flooring applications. It consists of:

- Component A : Isocyanate-based semi-prepolymer
- Component B : Amine-terminated resin blend with additives and pigments

The system cures rapidly to form a seamless, durable membrane with outstanding mechanical and chemical resistance.

Features & Benefits

- Fast Curing: Gel time under 20 seconds; enable vertical and overhead application without sagging
- Superior Waterproofing: Impermeable membrane protects against water ingress
- Excellent Application: Bonds to concrete, metal, and other substrates
- One-Pass Application: Achieves design thickness in a single spray session
- Seamless Finish: Dense, joint-free coating for long-term durability
- Eco-Friendly: Solvent-free, VOC-free, and free of heavy metals
- Wide Temperature Tolerance: Operational range from -45°C to + 150°C
- Precision Application: Mechanized spray ensures consistency and control

Recommended Uses

- Industrial floors, chemical tanks, drainage systems
- Petrochemical and wastewater structures
- Ship decks, bridges, steel platforms
- Roofs, exterior walls, and façade repairs
- Stadium seating, water parks, swimming pools

Technical Properties

Property	Requirement	Result
Solid Content (%)	≥ 98	98
Gel Time (s)	≤ 45	16
Surface Dry Time (s)	≤ 120	20
Tensile Strength (MPa)	≥ 16.0	22
Elongation at Break (%)	≥ 450	460
Tear Strength (N/mm)	≥ 50	66
Low Temp Flexibility (°C)	≤ -40	-40
Impermeability	0.4 MPa / 2h	impermeable
Heating Elongation (%)	≤ 1.0	0.4
Bond Strength (MPa)	≥ 2.5	3.0
Water Absorption	≤ 5.0	0.5
Heat Aging	No cracks/deform	Pass
Hardness (Shore A)	≥ 85	90
Abrasion Loss (mg)	≤ 30	1
Impact Resistance	≥ 1.0 kg m	Pass

Chemical Resistance

Deckrete PolyGuard STX is resistant to :

- Hydrogen Sulfide (H₂S gas)
- Sulfuric acid (diluted & moderate concentrations)
- Ammonia & ammonium salts
- Sodium hypochlorite
- Sewage bacteria & organic acids
- Alkaline cleaning agents
- Industrial effluent contaminants
- Petrochemicals, oils & greases

Construction Guidelines

- Surface Prep : Clean, dry C25 concrete with <8% moisture
- Environment: 5 – 35°C; humidity 30 – 80% avoid strong wind
- Spraying : A:B = 1:1 (volume); material temp 50 – 80°C
- Curing : Next process after 12h; full cure in 7 days
- Interface Agent: required if recoating after 24h or post-rain

Suggested Dosage

Application Type Thickness Usage (kg/m²):

Waterproofing	1.5mm	1.8
Anti-Corrosion	2.0mm	2.4

Packaging

- Component A : 220kg/drum
- Component B : 210kg/drum

Storage & Handling

- Store sealed in cool, dry, ventilated areas
- Shelf life: 6 months from production date
- Non-hazardous transport; avoid sun, rain and impact
- Reseal immediately after opening

Safety & Handling

- Use protective gear: gas mask, gloves, goggles
- No open flames, welding, or smoking during application
- In case of skin contact: wash with soap and water
- Eye contact: rinse thoroughly and seek medical attention

Additional Information

Topkrete manufacturers and offers a wide range of complementary products which includes waterstop, waterproofing products, grouts, anchors, specialized flooring products. In addition, a wide range of products formulated for repair and refurbishment of spelled concrete are available.

Warranty

Topkrete Sdn Bhd warrants that the products manufactured by it shall be free from material defects and will conform to formulation standards and contain all components in their proper proportion. Should any of the products be proven defective, the liability to TOPKRETE SDN BHD shall be limited to replacement of the material proven to be defective, and TOPKRETE SDN BHD shall in no case be liable otherwise or for incidental or consequential damages. **TOPKRETE SDN BHD MAKES NO WARRANTY AS TO MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE AND THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES EXPRESSED OR IMPLIED.** User shall determine the suitability of the product for its intended use and assume all risks and liability in connection therewith.

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