PRODUCT DATA SHEET

MPU® - ZZ

Root - Resistant Polyurethane Waterproofing Coating

DESCRIPTION

MPU-ZZ is a professional root - resistant single_ component polyurethane waterproof coating, based on isocyanate and polyether polyol, blended with safe root inhibitors and high - performance additives. It cures by reacting with air moisture to form a tough, flexible, seamless rubber membrane with outstanding plant root penetration resistance, ideal for green roof systems.

USES

- Green roof waterproofing
- Roofs with planting systems
- Underground structures with landscaping
- Terraces, balconies and roof gardens requiring root resistance

FEATURES

- Passed long - term root penetration test; no root penetration after 2 years.
- Free of coal tar, coumarone and toxic carcinogens; fully passes EU REACH 168 hazardous substances test.
- Supports spray application, efficiency 3x higher than traditional troweling.
- No plasticizer precipitation, no chalking, no delamination, stable long-term performance.
- Adapts to substrate deformation, cracks and building movement.
- No joints, reliable waterproofing.

CERTIFICATES AND TEST REPORTS

- CE Certification
- REACH Test (EU 1907/2006) (168 SVHC substances passed)
- Root resistance tested to Q/320564 PBT023
- GB/T 19250-2013 Polyurethane Waterproofing Coatings
- Tested by ILAC-accredited laboratories

PRODUCT INFORMATION

Item	Specification
Packaging	25KG / Pail
Reference Dosage	1.3-1.4 kg/m² per 1mm dry film thickness
Pot Life	≤4 hours (after opening)
Construction Temperature	5℃ – 40℃
Shelf Life	12 months (in original sealed packaging)
Storage Conditions	Cool, dry, ventilated area (5℃ – 35℃); avoid direct sunlight, heat and rain; open flames; no water immersion
Application Method	Brush, roller, airless spray

PRODUCT PROPERTIES

Property	Standard Value	Test Result	Test Method
Solid Content (%)	≥85	≥90	ASTM D6947
Tack Free Time (h)	≤12	≤8	ASTM D1640
Full Drying Time (h)	≤24	≤24	ASTM D1640
Tensile Strength (MPa)	≥2.00	≥3.00	ASTM D412
Elongation at Break (%)	≥500	≥500	ASTM D412
Tearing Strength (N/mm)	≥15	≥15	ASTM D624
Low Temperature Flexibility	-35℃ , No crack	Pass	ASTM D1970
Watertightness	0.3MPa, 120min, Watertight	Pass	EN 1928
Bonding Strength (MPa)	≥1.0	≥1.1	ASTM D4541
Water Absorption Rate (%)	≤5.0	≤3.5	ASTM D870

BASIS OF PRODUCT DATA

All data from standard laboratory tests under controlled conditions. Actual performance may vary due to site environment, temperature, humidity and construction method.

LOCAL RESTRICTIONS

Compliant with EU REACH, CE and international construction standards. For regional regulations, refer to the latest local product data sheet.

ECOLOGY, HEALTH AND SAFETY

Compliant with EU REACH (1907/2006), Solvent_ free formula is low-odor, non-toxic, and environmentally friendly. Wear protective gloves and clothing during construction. Ensure good ventilation. No open flames, smoking or heat sources on site. Dispose of waste according to local environmental regulations.

LEGAL NOTES

All information is for professional reference only. CANLON is not liable for improper storage, transportation, construction or misuse. User must verify suitability for intended projects.

APPLICATION INSTRUCTIONS

SUBSTRATE PREPARATION

Ensure substrate is solid, dry, smooth, clean and free of dust, oil, loose particles or standing water. Repair cracks, holes and uneven areas to provide a stable base.

Detail Reinforcement

For internal/external corners, construction joints and pipe penetrations, use the "coating + non-woven fabric" method (60 – 80g/m²). Apply a base coat, embed fabric while wet, then apply a top coat to fully seal.

Coating Application:

Apply in thin, multiple coats (max 0.7mm per layer). Allow each coat to fully dry before applying the next. Apply coats perpendicularly to ensure full coverage and uniform thickness.

Construction Precautions:

Do not dilute with water. Apply only between 5℃ and 40℃. Avoid rain, high humidity and dust. Use opened material within 4 hours; keep intercoat interval ≤24 hours.

Protection:

After the coating is fully cured and the waterproofing system is completed, protect the finished membrane surface from drilling, sharp impacts, heavy scraping, puncture or mechanical damage during planting work, landscape construction and subsequent cross-operations. Avoid direct contact with sharp tools, stones or debris that may pierce or tear the waterproof layer. Proper protection ensures long-term root resistance and waterproof performance.

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