

CASTLE PME-202 TECHNICAL DATA SHEET

Product Description

This premium waterproofing coating is a high-performance, cold-applied rubberized, water-based protective solution designed for residential, commercial, and industrial applications. Formulated with high solids content and strong cementitious bonding power, it provides durable waterproof protection across a wide range of substrates, including concrete, metal, wood, glass, fiberglass, and plastics. Its flexible, non-toxic, and non-flammable formulation offers long-term resistance against water penetration, alkali attack, UV exposure, and extreme temperatures.

Product Characteristics

- 100% premium waterproofing protection
- Excellent flexibility to accommodate substrate movement
- Strong cementitious adhesion to concrete surfaces
- High-solid formulation for efficient coverage and time-saving application
- Non-toxic and non-flammable composition
- Resistant to alkali and harsh environmental conditions
- UV and heat resistant from -40°C to 120°C
- Water-based formulation for easy cleanup

Product Information

- Appearance (wet): Slightly Cream/Milky White Ropy Liquid
- Appearance (dry): Matte White
- Chemical base: Water-based
- Odour: Odourless
- Packaging: 1-gallon and Pail (5 Gallon) containers

Performance & Technical Data

Tested At:	-40°C 8hrs -20°C. 16hrs 20°C. 16hrs 120°C. 8hrs After 10 rounds, still normal
Adhesion to Surface	(18.mg/cm ²) 264.6psi (JIS.K6848)
Pulling-Resistance Force	(29.mg/cm ²) 426.3psi (JIS.K6301)
Intensity of Divulsion	(18.mg/cm ²) 264.6psi (JIS.K6301)
Pressure Impermeability	(+) Positive Pressure (5kg/cm ²) 73.5 psi 24hrs. No Dank (-) Negative Pressure (3kg/cm ²) 44.1 psi 24hrs. No Dank
Permeability Test	(13.7.mg/cm ²) 24 hrs (JIS.K6848)
Tensibility Ratio	Above 450% (JIS.K6301)
Heavy Metal Leaching Test	Standard: PNS DW 2007 Method: ICP-OES Result: Within DOH Limits
Volatile Organic Compound	ASTM D6886-12 Result: 0.04% m/m VOC
Solar Reflectance Index	ASTM E1980-11 Result: 88
Main Content	Multi- Co Polymerized Resin with Nano Silica
Appearance	Cream-Colored Ropy Liquid
Solid Content	PME-202 (73%)
Viscosity (C.P.S.)	25,000
PH	5-6
Proportion	1.2

M.F.T.	0°C
Durability	Excellent
Daubing Volume	1.2-2.0g/m (Depends on the purpose)
Electric Charge	None

Analysis Report

Testing Item	Method	Result
No. 1 Pull Strength (kgf/cm)	JIS K6301 (Japan Standard) •Section 3 Specimen Type: No.3 •Test Speed: 500mm/min	29.4
No. 2 Expansion Ratio (%)	JIS K6301 (Japan Standard) •Section 3 Specimen Type: No. 3 •Test Speed: 500mm/min	46.0
No. 3 Tear strength (kgf/cm)	JIS K6301 (Japan Standard) •Section 3 Specimen Type: No. 3 •Test Speed: 500mm/min	18.5
No. 4 Water Drop Test (kgf/cm)	ASTM E96 (American Standard) •Method B	7.81 x 10-2

Coverage Rate:

- 4 kg per gallon covers approximately 3 m² (3 heavy coats)
- 20 kg per pail covers approximately 15 m² (3 heavy coats)
- Standard system: 3 coats
- Recommended dry film thickness: 1.2 mm to 1.5 mm

Shelf Life:

- 12 months when stored in a cool, dry place

Application Mixtures

Concrete Surfaces:

- Use PME-901 Primer prior to topcoat application for optimum adhesion.
- Follow with PME-202 Top Coat in three heavy coats.

Other Surfaces (Metal, Wood, Glass, Plastic):

- Apply PME-202 Top Coat directly using brush.
- Three heavy coats recommended for maximum waterproofing performance.

Application Instructions

1. Prepare the surface thoroughly. Ensure substrate is clean, dry, and free from dust, oil, sand, and loose debris.
2. For concrete substrates, apply PME-901 Primer and allow proper drying before topcoat application.
3. Apply PME-202 Top Coat using brush.
4. Apply at least three heavy coats, allowing each coat to dry before applying the next.
5. Maintain recommended film thickness of 1.2–1.5 mm for long lasting effective waterproofing.
6. Allow full curing for a minimum of 72 hours before water leak testing or exposure to standing water.
7. Clean tools and equipment with water immediately after use.

Storage

- Store at room temperature
- Keep containers tightly sealed
- Keep in an upright position
- Protect from direct sunlight
- Avoid storage in areas with excessive heat

Disclaimer

CASTLE Premium Waterproofing, PME-202 Top Coat is a cold-applied rubberized, flexible waterproofing membrane intended solely for waterproofing applications and is not designed as an exposed wearing surface for medium- to heavy-traffic areas. Due to its flexible rubberized nature, the membrane may be susceptible to punctures, abrasion, scratches, or other mechanical damage when subjected to regular foot traffic, vehicular loads, equipment movement, or similar conditions without proper protection. Such damage may compromise membrane continuity and reduce waterproofing performance. For applications in traffic-bearing areas, the membrane must be protected with an appropriate overburden or protective finish, such as concrete topping, cementitious screed, tiles, or other suitable coverings, to ensure mechanical protection and long-term durability. Use in traffic areas without adequate protection is not recommended.

Film thickness, coverage rates, and coating recommendations stated herein are standard application guidelines only. Actual site conditions—including substrate porosity, surface profile, moisture content, movement conditions, and exposure environment—must be properly evaluated prior to application, and material consumption, number of coats, or application procedures may need to be adjusted to suit specific project requirements.

All information provided is based on laboratory testing and practical field experience under controlled conditions. Actual performance may vary depending on substrate condition, workmanship, application method, and environmental factors. The user is solely responsible for determining the suitability of the product for the intended application and for ensuring proper installation in accordance with project requirements.



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