

Vulkem 450/451

A two part elastomeric and waterproof seamless coating

Key Benefits Summary:

- Use over wood, metal and concrete surfaces
- Will withstand water ponding
- Flexible and durable
- UV and ozone resistant

Product Description:

Vulkem 450/451 system combines a flexible and durable urethane basecoat (Vulkem 450) with an ultra-violet and ozone resistant topcoat (Vulkem 451) to yield an elastomeric and waterproof seamless coating. The flexibility and elasticity of the Vulkem 450/451 system allows for normal movement without surface cracking. The one-part base coat and topcoat offer ease of application and substantial labour savings over conventional two component products.

Basic Uses:

The Vulkem 450/451 system is ideal for waterproofing and protection of roof decks, exposed panels and walk decks of metal, concrete and plywood. The system will withstand ponding water which may occur in such areas. Vulkem 450/451 offers excellent sag resistance at specified coverage rates and is ideal for both horizontal and vertical surfaces.

Technical Information:

Vulkem 450/451 system provides tremendous weather, chemical and mechanical damage resistance. The high build-high solids system forms a durable barrier to most airborne pollutants, residual factory emissions and other chemicals which will break down inferior systems. In addition, the Vulkem 450/451 system is resistant to mould, mildew and microbiological attack which is a by-product of ponding water. Flexibility at all temperatures is assured by the well documented performance of Vulkem Urethanes, Sealant, Membrane and Coating Systems worldwide.

Substrates And Preparation:

Concrete: Concrete surfaces shall be clean, dry, free of laitance and other contaminants. New concrete decks shall be water cured and in place a minimum of 14 days, preferably 28 days prior to application of the Vulkem 450/451 system.

Structural design allow positive draining; slope to drain shall be minimum 3mm per running foot. Spalled areas shall be resurfaced with a proprietary patching compound. Hairline cracks less than 1.5mm shall be pretreated with a 1.5mm coating of Vulkem 450, 15cm wide centered over the crack. Moving structural crack greater than 1.5mm shall be routed out, filled with Vulkem 116 Sealant or Tremflex 25, and coated with a 1.5mm detail coat of Vulkem 450.

Wood: Exterior grade plywood is a suitable substrate after proper preparation. Surfaces shall be dry, smooth and free of dirt and oil. Wood surfaces shall be primed with Vulkem 171 Primer prior to system application. All joints between plywood sheets shall have a 1.5mm gap filled with Vulkem 116 sealant or Tremflex 25. Plywood shall be glued and firmly nailed with ring shanked nails.

Metal: Metal surfaces shall be clean and free of any rust, dirt and grease. Rusted surfaces must be wirebrushed or sandblasted to bright metal. The use of Vulkem 171 Primer is recommended over bare metal.

Application:

The Vulkem 450/451 system may be applied using roller, squeegee or spray equipment. Airless spray equipment will give best results and Vulkem 450 may be thinned 0.95 litres per 18.9 pail (one quart per five gallons) with Xylol prior to spraying. Vulkem 451 shall be applied after Vulkem 450 has cured to a rubbery set (24-36 hours at 21°C).

Coverage:

Apply Vulkem 450 at 1.5mm thickness, which is .65 square metres per litre.
Apply Vulkem 451 at 0.1mm thickness, which is 10 square metres per litre.
Above coverage rate yields a total system thickness of 1.6mm

Limitations:

Vulkem 451 must be applied over Vulkem 450 for all exposed applications.
Vulkem 450/451 system is not recommended for use over asphalt surfaces.
Use in well ventilated areas.
Container contents must be used within 48 hours of opening.

Health And Safety:

Material Safety Data Sheet must be read and understood before use.

Guarantee/Warranty:

We warrant our products to be free of defects and manufactured to meet published physical properties when tested according to applicable specifications and TREMCO standards. Under this warranty we will provide at no charge, product to replace any product proven to be defective when applied in accordance with our written instructions and in applications recommended by TREMCO as being suitable for this product. All claims concerning product defects must be made within 12 months of shipment. Absence of such claims in writing during this period will contribute a waiver of all claims with respect to such product. This warranty is in lieu of any and all other warranties expressed or implied.

Equus Industries Ltd
PO Box 601
Blenheim
Phone: 03 578 0214 Fax 03 578 0919
Email: admin@equus.co.nz

Typical Physical Properties:

Property	Test Method	450	451
Specific gravity	ASTM D1475	1.32	1.06
Weight per gallon	ASTM D1475	5kgs	4kgs
Weight	ASTM D1353	83%	79%
Viscosity, CPS	Brookfield #4	20,000	1,500
	Spindle @20 rpm		
Dry time	ASTM D1640	Tack free	Tack free
		24hrs	16 hrs
		Rubbery Cure - 24hrs	
		Cure 48 hrs.	
Flash point	ASTM D1310	38°C	28°C
Hardness Shore A	ASTM D2240	37	80
Tensile Strength	ASTM D412	2.2MPa	24.0MPa
Elongation	ASTM D412	450%	250%
Adhesion in	ASTM D903	129N	100% cohesive
Peel to Vulkem 450			
MVT	ASTM E96, B	1.58 m.p	.5 m.p
Weather Resistance	ASTM D822	N.A	Excellent
Salt Spray	ASTM B117	N.A	No effect
Abrasion	ASTM C501	N.A	.5mg loss
Resistance	20 Rev., CS 17		
	wheel 1000gm. wt.		
Tear Resistance	ASTM-D1004	200pli(889N)	225pli (101N)
Fire Resistance	ASTM E108	System is rated class A over combustible substrate.	

Packaging:

7.6 litre pails, 19 litre pails and 208 litre drums.

Colours:

White, limestone, grey