

CIPADECK[®] MR SYSTEM

Mechanical Room Waterproofing System

DESCRIPTION

CIPADECK[®] MR System is a 100 % solids multi-coat waterproofing system. It consists of an amine cured polyurethane elastomeric membrane, CIPADECK[®] Membrane 100, and a tough flexible wear and slip resistant epoxy topcoat, CIPADOR[®] E-400. Together, they provide an attractive durable monolithic waterproofing system.

WHERE TO USE

CIPADECK[®] MR System is a cold applied deck coating system, primarily designed for waterproofing mechanical equipment rooms.

BENEFITS

- \$ contains NO ISOCYANATE
- \$ 100% solids, odorless with zero VOC's
- \$ moisture insensitive during the application and throughout the cure (not affected by humidity)
- \$ long pot life and easy to apply
- \$ very good color stability and weather resistance
- \$ tough, resilient and abrasion resistant
- \$ CIPADECK[®] Membrane 100 retains its integrity even if substrate movement causes hairline cracks up to 1.6 mm (1/16")
- \$ available in a wide range of standard colors

APPLICATION

SURFACE PREPARATION

New concrete must be cured for a minimum of 28 days before applying CIPADECK[®] MR System. The substrate must be above 10°C (50°F) and must be free of all dirt, waxes, previously applied coatings, oil, grease, laitance and any foreign matter that may interfere with the bond of the coating to the substrate. Cracks and surface defects should be repaired prior to application of the coating. All concrete and steel surfaces to be coated should be shot blast, water blast or mechanically cleaned to provide a clean tooth for the coating.

DETAILING

Joints or cracks should be repaired prior to application of CIPADECK[®] MR System. Cracks and cold joints less than 1.6mm (1/16") wide should be coated over with the CIPADECK[®] Membrane 100. All cracks and joints greater than 1.6mm (1/16") wide must be routed and sealed with an approved polyurethane sealant.

The CIPADECK[®] Membrane 100 must be extended a minimum distance of 50 mm (2") on either side of all sealed cracks, cold joints and control joints to yield a total film thickness of 20-30 mils dry.

PROPERTIES

	CIPADECK [®] Membrane 100	CIPADOR [®] E-400
Handling Properties (tested @ 23° C (74° F))		
Mix Ratio, by volume, A/B	2/1	2/1
Viscosity (Mixed), cps	3000	3000
Mixed Weight (Density), kg/litre (lb/ gal.)	1.07 (8.9)	1.43 (11.8)
Solids Content	100 %	100 %
Pot Life	2 hours	20 minutes
Set Time	16 hours	6-8 hours
Full Cure	7 days	7 days
DATA - Cured Film (7 days Cured @ RT/ 50% RH)		
Elongation (ASTM D 412)	325%	-
(ASTM D638)	-	80%
Tensile Strength, MPa (psi) (ASTM D 412)	4.5 (650)	-
(ASTM D638)	-	11 (1600)
Shore Hardness ASTM D2240	30 A	60 D
Tear Strength KN/m (pli) (ASTM 624)	12 (68.5)	-
Tensile Adhesion to concrete, MPa (psi) (ASTM D4541)	2.4 (350)	2.8 (400)
Chloride Permeability (AASHTO T-2770)	0 Coulombs	
Abrasion Resistance, mg loss - (ASTM D4060, Taber, CS-17, 1000 cycles)	120	100
Chemical Resistance	no effect from water, motor oils, gasoline, anti-freeze, alkalis, salts and common household chemicals.	

The above information is representative of actual production runs. Independent test results may vary from the above by approximately ± 10%.

MIXING

The mixing equipment used to mix the coating must be clean and free of any contaminants that may be present in the equipment from previously used products. Mix component A first to eliminate the possibility of settlement. Pour all of the liquid from Part A and Part B into the mixing equipment. A 'Jiffy Mixer' or a mud mixer blade on a slow speed drill is the preferred method of mixing. Mix the blended components for a minimum of 2 minutes.

APPLICATION

Membrane Installation:

Apply CIPADECK[®] Membrane 100 to an even thickness using a squeegee and further level using a lint free 5mm nap roller (designed for epoxy and urethane) to achieve a total thickness of 20 to 40 mils. Allow the membrane to cure overnight before applying CIPADOR[®] E-400.

Topcoat Installation:

Apply CIPADOR[®] E-400 with a lint free 5mm nap roller (designed for epoxy and urethane) in a one coat application to achieve a film thickness of 5-8 mils. CIPADOR[®] E-400 is a fast setting enamel. As soon as the Part A and Part B are thoroughly mixed, spread the material quickly onto the cured membrane surface. Lightly seed the wet film with 50 mesh silica and back roll to encapsulate the aggregate into the coating. If a smooth finish is desired, apply a second coat of CIPADOR[®] E-400. Allow the coating to cure overnight.

The topcoat should be applied over the membrane within the recoat time (24 hours). Otherwise roughening of surface will be necessary to ensure good intercoat adhesion.

LIMITATIONS

- \$ do not apply CIPADECK[®] MR System if the substrate and ambient temperatures are below 10°C (50°F).
- \$ CIPADECK[®] MR System is designed for thin film thickness applications that necessitate that the deck surface to be relatively smooth.
- \$ do not apply to a damp surface
- \$ prime with CIPADITE[®] Primer DS when the concrete substrate is damp prior to the application of CIPADOR[®] MEMBRANE 100.
- \$ CIPADECK[®] MR System is not recommended for exterior application. It may slightly discolor upon direct exposure to sunlight

COVERAGE

CIPADECK[®] Membrane 100:

Based on 20 mils thickness per coat:
2 m²/litre (80 ft²/U.S. gallon)

CIPADOR[®] E-400:

Based on 5 mils thickness per coat:
8 m²/litre (325 ft²/US gallon)

PACKAGING

CIPADECK[®] Membrane 100:

3.79 litre/1 U.S. gal. units
11.4 litre/3 U.S. gal. units
56.7 litre/15 U.S. gal. units

CIPADOR[®] E-400:

3.79 litre (1 U.S. gallon)
11.4 litre (3 U.S. gallons)
56.7 litre (15 U.S. gallons)

CLEAN UP

Clean all equipment and installation tools immediately with CPD[®] Xylol . Read the M.S.D.S. for this product prior to use.

STORAGE

Store in a heated warehouse. Do not freeze.

SHELF LIFE

Three years from the date of manufacture if kept in original unopened containers under normal heated warehouse conditions.

SAFETY PRECAUTIONS

Consult Material Safety Data Sheet (M.S.D.S.) for specific instructions. CIPADECK[®] Membrane 100 MSDS # 294 + 294a, + CIPADOR[®] E-400 MSDS # 241 + 242.

WARRANTY

The recommendations made and the information herein is based on our own and independent laboratory experience, and is believed to be accurate under controlled conditions. However, no warranty or guarantee of accuracy is made because we cannot cover every possible application of product nor anticipate every variation encountered in weather conditions, job conditions, methods used and types of surfaces on which the product is applied. The users shall make their own tests to determine the suitability of such products for any particular purpose.

CPD[®] makes no warranties with respect to this product, expressed or implied, including, without limitation, the implied warranties of merchantability or fitness for a particular purpose.

CPD[®]'s liability shall be limited in all events to supplying sufficient product to re-treat and/or repair the specific area to which the CPD[®] product has been applied. CPD[®] reserves the right to have the true cause of any difficulty determined by accepted test methods. CPD[®] shall have no other liability, including liability for incidental, consequential or resultant damages, however caused, whether due to breach of warranty, negligence, or strict liability.

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