

MasterSeal[®] 928 CVIM

Contact Voltage Isolation and Waterproof Membrane

DESCRIPTION

MasterSeal 928 CVIM is a Contact Voltage Isolation and Waterproof Membrane specifically formulated to prevent the transfer of static electrical current through concrete slabs and walls in both dry and wet conditions. Whilst suitable for a wide range of uses, **MasterSeal 928 CVIM** helps protect passengers and workers boarding or working on electrified rail systems. It is a vital component in protecting passengers from static discharge where platform screen doors are installed.

With a thickness of 2.5mm the **MasterSeal 928 CVIM** has a volume resistivity of 6.17×10^{14} ohm-cm and out performs all other known voltage isolation membranes of the same thickness.

Comprising a specially formulated butyl rubber membrane which contains neither bitumen nor bentonite, the **MasterSeal 928 CVIM** has a self-adhesive base layer for bonding the membrane to differing substrates such as concrete slabs and metalwork. This self-adhesive side of the membrane provides an instant high-strength bond to the surface of most major construction substrates.

The upper layer of **MasterSeal 928 CVIM** incorporates a non-woven polyester fleece surface layer. This layer allows the application of a variety of finishing materials including concrete and screed toppings as well as chemical and fireproof cement-based materials. Through this fleece layer, the concrete and screed toppings will form a high-strength bond to the membrane and indirectly through the membrane's self-adhesive layer to the underlying slab or other substrate.

Similarly, a high-strength bond will be formed with plaster, render, cementitious coatings, resins, paints, tile adhesive and other similar materials applied in vertical and overhead planes.

This fully bonded system prevents delamination between the substrate and the topping which helps maintain the integrity of the floor, wall, column and ceiling finishes.

MasterSeal 928 CVIM also helps isolate finishes zones from movements in underlying substrates as it offers high crack-bridging characteristics up to 3mm. The flexibility of the butyl core absorbs these deflections and helps prevent substrate cracking from transferring through to fragile applied finishes.

ADVANTAGES

- Fast installation just peel and stick application.
- No torch-on or hot air needed for installation.
- Excellent adhesive properties over a variety of surfaces with the use of MasterSeal Primer.
- Readily conforms to irregular surface profiles.
- Does not contain bitumen making it more environmentfriendly.
- Does not contain bentonite which is liable to dissolve in entrapped water and reduce the effectiveness of the isolation membrane.
- Excellent double bond to substrate and toppings.

APPLICATION

- Electrified rail depots.
- Platform screen doors at railway station platforms, walls and columns.
- Viaducts and bridges.
- Power stations, electrical sub-stations and other utilities.
- Electrical riser rooms.
- Location where embedded electrical conduits are installed.
- Electrical isolation of metalwork such as expansion joints, control joints and other conductive materials that pass through electrically isolated areas
- Petrol chemical plants and holding tank areas

INSTALLATION PROCEDURES

- Clean the surface using a brush and remove any dirt, debris or high points in the concrete which may prevent the **MasterSeal 928 CVIM** from properly adhering to the surface.
- Apply one layer of MasterSeal Adhesive (water based primer) using a roller or brush. Allow MasterSeal Adhesive to become touch-dry before installing the **MasterSeal 928 CVIM** membrane (approximate drying time is 10-20 minutes).
- Remove the release paper from the adhesive side of the **MasterSeal 928 CVIM** and apply the **MasterSeal 928 CVIM** membrane onto the primed surface.

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- Firmly press the entire surface of **MasterSeal 928 CVIM** into place using a medium or hard surface roller to ensure proper bonding of the membrane is achieved and that all air pockets are removed.
- Where the overlap sections of **MasterSeal 928 CVIM** membrane meet, provide an overlap of the membrane to the other of not less than 50mm (follow the red indicator line) and firmly press the overlapping piece together with the underlying piece to seal the seam.

PACKAGING & DIMENSION

2.5mm (thick) x 500mm (wide) x 10 meters (length)

TECHNICAL DATA

Specification	Test Method	Requirement	MX 600	Characteristics	UOM	Average Value	Test Method
Electrical Resistivity	ASTM D257	5.0 x 10 ¹⁴ ohm-cm	6.17 x 10 ¹⁴ ohm-cm chm-cm Peel	Weight	g/m2	68	ASTM
Adhesion	ASTM D903	>900 kPa	No Adhesion Failure	Tensile Strength M.D	lb/in	22/04	ASTM
Adhesion Pull of Strength	ASTM D4541	-	No Adhesion Failure	Tensile Strength C.D	lb/in	14.27	ASTM
				Elongation M.D	%	110	ASTM
Specific Gravity	ASTM C990	1.15-1.150	1.20-1.25	Elongation C.D.	%	110	ASTM
				Thickness	mils	16.9	ASTM

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