



*Saves Past...
Protects Future...*

Monarch Industrial Products (I) Pvt. Ltd.

(An ISO 9001 : 2008, ISO 14001 : 2004 & OHSAS 18001 : 2007 Certified Company)

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Surface Protective Coatings TM

Monoguard

Minimum Maintenance

Maximum Protection



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SURFACE PROTECTIVE COATINGS

Barrier Coatings against Concrete Corrosion due to Oxidation, Chlorination, Sulfation & Carbonation

Concrete is today's main building material. Modern infrastructure, road and bridge construction would be inconceivable without concrete as would skyscrapers and industrial buildings. Concrete is a versatile building material used especially in civil engineering in combination with steel. Concrete and reinforced concrete are building materials that have significantly changed construction. Despite concrete's durability, serious concrete damage that endangers a building's existence frequently occurs. The main cause of concrete damage is reinforcement steel corrosion due to environmental influences.

The fresh concrete is highly alkaline which passivates the reinforcement steel. However when the concrete structures remain vulnerable to external atmosphere for 24 hours a day, 7 days a week in all operational environments, the steel's passivation layer (protective layer) begin to dissolve due to harmful substances that penetrate into the building material by means of moisture. The water penetrates into the concrete as deep as the steel reinforcing rods or steel mesh, depends on the porosity, to cause their rusting. The pitting corrosion starts in the steel, damaging the structural integrity.

Since the volume of the corrosion products is much higher than that of the steel, it occupy a volume equal to six times that of original steel. The formation of rust products will lead to cracking, delamination and spalling of the cover concrete when expensive stress exceeds the tensile strength of the concrete, and reduction of steel reinforcing cross section may lead to structural failure. This accelerates the corrosion process by providing as easy access for the water and chlorides to reach the steel. When corrosion products are deposited, they induce tensile stresses on the surrounding concrete, which cause cracking to occur.

The absorption of harmful substances is usually the outcome of contact between concrete material and water as capillary action transports the water into the concrete. This contributes to the following forms of damage. Chemical corrosion, Cracks by swelling and shrinkage, Efflorescence, Lime leaching and salt damage by hydration, Dirt pick-up, Rust stains, Fungus, moss, lichen and algae growth. The protective layer against water uptake is the paramount importance.

The Buildings hence need Surface Protective Coatings to protect them from causing reinforcement corrosion due to ingress of chlorides, chemicals, road salts, freeze/thaw cycles or other contaminants through water and oxygen. Monarch's MonoGuard Surface Protective Coatings provide reliable protection for concrete structure aim is to preserve the value of old and new buildings & civil infrastructure to protect them against weathering and structural damage. It is the known fact that repairing the concrete structures is up to ten times more expensive than preventive measures. The coatings protect the concrete in the most efficient way and the building fabric remains intact as a result. The concrete thus is less susceptible against physical, chemical, UV radiation, thermal stress and microbiological attack especially in road, bridge and building construction.

Applications: Chemical/petrochemical plants, Refineries, Power stations, Nuclear facilities, Industrial facades, Wood and paper industry, Food industry, LNG, methanol and ethylene plants, Natural gas storage vessels/tank farms, Bioenergy/environmental technology, Turbine insulation, Cement works, Sea water desalination, Fertiliser factories, Waste incineration, Trace heating, Underground tank, Overhead tank, Reservoir etc., chemical plants, Cooling Towers.

Features

- ❖ Durable in all climatic conditions.
- ❖ Excellent barrier to carbon dioxide, chloride ions, sulphates, oxygen and water
- ❖ Improves the resistance of concrete to many industrial chemical
- ❖ Attractive- available in a range of colours.
- ❖ Antifungal- resistant to fungal attack
- ❖ Non yellowing : Will not yellow on exposure to UV rays.
- ❖ Chemical resistant :Excellent resistance to most industrial chemicals, acids, solvents etc.
- ❖ Hygienic : Seamless surface, easily cleaned
- ❖ Excellent adhesion : Bonds well with both steel and concrete substrates
- ❖ Excellent flexibility to withstand higher temperatures



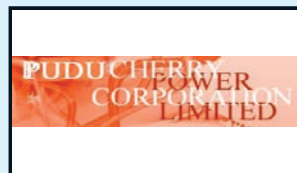
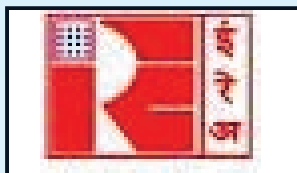
Product Range

Description	Name	Code	Packsize	Pack Size Break-up	Coverage	Consumption	MOQ
					Sq.m / Pack Size / Thickness / Recommended No of coats	Sq.m / Pack Size / Thickness / Recommended No of coats	
Epoxy Primers for Concrete Surfaces							
Fast curing solvent free epoxy primer	MonoBond FP	11911	5 Kg	R 4.498 + H 0.502	40 Sq.m / 5 kg / 100mic / coat	0.125 kg/Sq.m/ 100mic/ coat	5 Kg x 4 Nos
Solvent Free Epoxy Primer	MonoBond SFP	11912	5 Kg	R 3.314 + H 1.686	37 Sq.m / 5 Kg / 100 mic / coat	0.135 kg / Sq.m / 100 mic / coat	5 Kg x 4 Nos
Solventless Epoxy Primer	MonoBond EP	11913	5 kg	R 3.965 + H 1.035	40 Sq.m / 5 kg / 100 mic / coat	0.125 kg / Sq.m / 100mic/ coat	5 Kg x 4 Nos
Solvented Epoxy Primer	MonoBond SEP	11914	5 Kg	R 3.096 + H 1.904	37 Sq.m / 5 Kg / 100 mic / coat	0.135 kg / Sq.m / 100 mic / coat	5 Kg x 4 Nos
Surface / Moisture tolerant Epoxy Primers							
Moisture tolerant Epoxy Primer for Damp Metal & Concrete Surfaces	MonoBond MICP	11921	5 Kg	R 1.460+ H 3.540	30 Sq.m / 5 kg / 100 mic / coat	0.166 kg / Sq.m / 100 mic / coat	5 Kg x 4 Nos
Moisture Insensitive Epoxy Primer for Metal Surfaces	MonoBond MIP	11922	5 Kg	R 3.380+ H 1.630	37 Sq.m / 5 Kg / 100 mic / coat	0.135 kg / Sq.m / 100 mic / coat	5 Kg x 4 Nos
Epoxy based Protective Coatings							
Solvent Based Epoxy Coating.	MonoGuard EMG	11501	5 Kg	R 3.630 + H 1.370	20 Sq.m / 5 kg / 100 mic / 2 coats	0.250 Kg / Sq.m / 100 mic / 2 coats	5 Kg x 4 Nos
100% solids, Solvent Free Epoxy Coating.	MonoGuard ECG	11502	5 Kg	R 2.500 + H 2.500	14 Sq.m / 5 kg / 250 mic / coat	0.357 kg / Sq.m / 250 mic / coat	5 Kg x 4 Nos
Chemical Resistant Phenolic based Coating.	MonoGuard SCG	11503	5 Kg	R 3.330 + H 1.670	20 Sq.m / 5 kg / 100 mic / 2 coats	0.2 50 kg / Sq.m / 100 mic / 2 coats	5 Kg x 4 Nos
Food Grade & solvent free, epoxy Lining compound for food stuffs.	MonoGuard FEC	11504	5 kg	R 4.170 + H 0.830	15 Sq.m / 5 kg / 200 mic / coat	0.300 kg / Sq.m / 200 mic / coat	5 Kg x 4 Nos
Moisture Compatible / tolerant Epoxy Coatings	MonoGuard MEC	11505	5 Kg	R 2.556 + H 2.444	18 Sq.m / 5 Kg / 180 mic / coat	0.278 kg / Sq.m / 180 mic / coat	5 Kg x 4 Nos
Coal Tar Epoxy Protective Coating	MonoGuard BCT	11507	5 Kg	R 2.500 + H 2.500	18 Sq.m / 5 kg / 100 mic / 2 coats	0.278 kg / Sq.m / 100 mic / 2coats	5 Kg x 4 Nos
Polyurethane based Protective Coatings							
2K Aliphatic Polyurethane Coating for UV / Chemical Resistance	MonoGuard PMG	11511	4 Kg	R 3.332 + H 0.668	25 Sq.m / 4 kg / 100 mic / 2 coats	0.160 kg / Sq.m / 100 mic / 2 coats	4 Kg x 4 Nos
2K High build Aliphatic Polyurethane Protective Coating	MonoGuard PCG	11512	4 Kg	R 3.379 + H 0.628	20 Sq.m / 4 kg / 125 mic / 2 coats	0.200 kg / Sq.m / 125 mic / 2 coats	4 Kg x 4 Nos
Anti-graffiti ,Stain-Free, Maintenance - Free coating	MonoGuard PAG	11513	4 Kg	R3.616 + H 0.384	12 m2 / 4 kg / 150 mic / 2 coats	0.333 kg / Sq.m / 150 mic / 2 coats	4 Kg x 4 Nos
Polyester based FRP Chemical Resistance Coatings and Linings							
Sandable Polyester Putty	MonoGuard PP	11521	1 Kg	R 0.980 + H 0.020	0.6675sq.m/ 1 kg / 1mm	1.5 kg/ sq,m/ 1mm	1 Kg x 8 Nos
Chemical Resistance Epoxy based FRP Coating	MonoGuard FEP	11522	1 Kg	R 0.898 + H 0.102	1 Sq.m / 1 kg / 200 mic / 2 coats / Each FRP Layer	1 kg / Sq.m / 200 mic / 2 coats Each FRP layer	1 Kg x 8 Nos
Chemical Resistance Polyester based FRP Coating	MonoGuard FCR	11523	36.050 Kg	R 35 + H 0.700 + AC 0.350	36 Sq.m / 36.050 kg /200 mic /2 coats / Each FRP layer	1 kg / Sq.m / 200 mic / 2 coats / Each FRP layer	36.5 Kg x 1 Nos
Glass Fibre 600/450 GSM Mat	MonoGuard FFM	11524	1 Sq.mtr	Mat	N/A	N/A	1 Kg x 10 Nos
Glass Fibre Surface Mat	MonoGuard SM	11525	1 Sq.mtr	Mat	N/A	N/A	1 Kg x 10 Nos
Polyester Resin based Pigment	MonoGuard FFP	11526	1 Kg	P 1	N/A	N/A	1 Kg x 10 Nos

Product Range

Description	Name	Code	Packsize	Pack Size Break-up	Coverage	Consumption	MOQ
					Sq.m / Pack Size / Thickness / Recommended No of coats	Sq.m / Pack Size / Thickness / Recommended No of coats	
Vinyl based FRP Chemical Resistance Coatings and Linings							
Vinyl Ester based Primer.	MonoGuard VEP	11527	1 Kg	R 0.980 + C1 0.01+ C2 0.01	6 Sq.m / 1 kg / 100mic / coat	0.166 kg / Sq.m / 100mic/ coat	1 Kg x 8 Nos
Vinyl Ester based Glass Flake Coatings for Corrosion Protection.	MonoGuard VGFC	11528	1 Kg	R 0.980 + C1 0.01 + C2 0.01	1.06 m2 / kg / 600 mic / 2Coats	0.943 kg / Sq.m / 600 mic / 2 coat	1 Kg x 8 Nos
High Temperature Resistance Vinyl Ester based Glass Flake Coatings for Corrosion Protection till 175oC dry temperature	MonoGuard HTVEC	11529	1 Kg	R 0.980 + C1 0.01 + C2 0.01	1.0 m2 / kg / 600 mic / 2 Coats	1 kg / Sq.m / 600 mic / 2 coat	1 Kg x 8 Nos
Aliphatic Acrylate based Protective & Decorative Coatings							
Penetrating silane / siloxane primer for Acrylic based systems	MonoGuard PDC - Primer	11531	4 Kg	R 4	14 Sq.m / 4 kg / Coat	0.250 Kg / Sq.m / coats	4 Kg x 8 Nos
Protective and decorative coatings for concrete and masonry surface	MonoGuard PDC	11532	20 Kg	R 20	55 Sq.m / 20 kg / 150 mic / 2 Coat	0.363 kg / Sq.m / 150 mic / 2 coats	20 Kg x 4 Nos
Acrylic based Protective coating for concrete structures							
Single Component Acrylic Polymer Protective Coating	MonoGuard RG	11541	20 Kg	R 20	60 Sq.m / 20 kg / 110 mic / 2 coats	0.333 kg / Sq.m / 110 mic / 2 coats	20 Kg x 4 Nos

Clientele List



Cost Saving solutions for

Repair & Maintenance of aging assets and Protection & Improvement of new assets

Buildings & Civil Infrastructure Maintenance for Civil & Project Engineering

- ❖ Waterproofing ❖ Heat Reflective Coatings ❖ Surface Protective Coatings ❖ Architecture & Decorative Coatings ❖ Adhesives & Sealants
- ❖ Construction Admixtures ❖ Repair, Rehabilitation & Strengthening ❖ Grouts & Anchors ❖ Floor Screeds & Toppings
- ❖ Surface Treatments ❖ ESD - Anti Static/Dissipative/Conductive Floor Coatings ❖ Road Maintenance Coatings ❖ Tile Grouts

Maintenance, Repair & Overhaul (MRO) for Mechanical & Electrical Engineering

- ❖ Metal Reclamation Putties ❖ Maintenance Coatings ❖ Energy Saving Coatings ❖ Pipe Repair & Strengthening Kits ❖ Metal Epoxy Sticks
- ❖ Industrial Maintenance Aerosols ❖ Oil, Grease & Lubricants ❖ Emergency Maintenance Kits ❖ Self Fusing Insulation Tapes
- ❖ Crusher Backing Compound ❖ Anti-Corrosive Coatings ❖ Marine Coatings ❖ Wear Protection Solutions
- ❖ High Temperature Coatings ❖ Fire Retardant Coatings ❖ Thermal Insulation Coatings ❖ Hand Cleaners & Barrier Creams

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