

MasterShield PEL 1150

Silane based thixotropic paste hydrophobic impregnant

Material Description

MasterShield PEL 1150 is an aqueous cream of octyltriethylsilane water repelling impregnant for all types of cement based materials.

Areas of Application

MasterShield PEL 1150 is recommended for impregnating reinforced concrete used in building bridges, roads and buildings. It can also be used as a primer for anti-carbonation paints such as MasterShield AC 150 and 160. **MasterShield PEL 1150** may be used on any concrete substrate that has been treated previously with alkoxysilane based impregnating agents.

MasterShield PEL 1150 can be applied in just one coat of the desired thickness (at the very most, two coats). The silane active ingredient penetrates the substrate within 30 minutes to several hours, the exact time depending on the porosity and thus quality of the concrete. On reaction with the substrate, it releases ethanol and is converted into a polymeric silicon resin. A creamy layer forms initially, but this then disappears completely. **MasterShield PEL 1150** does not block the pores or capillaries to water vapour and thus allows the structure to breathe but provides an effective barrier to liquid water.

Characteristics and Benefits

- Forms layer in the concrete matrix – stop water ingress but allows structure to breathe
- Forms a barrier to dissolved salts – prevents damage by salt spray.
- Forms a barrier to carbonated waters (acid rain) – protection against damage from carbonation
- Dramatic reduction in water absorption – reduction in potential corrosion rate of reinforcing steel
- Primer for anti-carbonation paints - Provides good adhesion for subsequent paint coatings
- Low volatility – applies as a crème and thus suitable for application in exposed situations
- Thixotropic - may be applied without loss of material in windy conditions

Properties

Supply form	White creme
Specific gravity	0.9kg/lit
Active constituents	80% octyltriethylsilane
pH	7-8
Flash point	> 60°C
VOC content: g/L 10 (HK prod code P08-13)	

Application

MasterShield PEL 1150 is best applied to the concrete undiluted and in the desired thickness with brushes or rollers. Depending upon the condition and absorbency of the substrate and the impregnation depth required, the exact amount of material used may vary. Application rates of between 200 – 400ml/m² is recommended. Up to 400ml/m² may be applied in one operation to vertical surfaces and roofs, without loss of material.

If the substrate is of low porosity and thus not very absorbent, do not apply more than 200ml/m² in one operation, as it may take several hours to penetrate completely. At higher application rates, the impregnating film might liquefy because of the concrete's alkalinity and it might start to run off. A second coat of **MasterShield PEL 1150** may be applied at any time, to achieve the desired coverage rate.

To ensure that the concrete is cured properly, it is best to wait at least two weeks, and preferably four, before impregnating it. Remove coarse particles and dust from new unsoiled surfaces with a brush or compressed air. Surface contamination of oils, paints and grime need to be removed via chemical cleaning or mechanical preparation to give a clean surface to apply to. **MasterShield PEL 1150** can be applied to MasterEmaco repair mortars and fairing coats if these are used for repairing a surface.

Only impregnate concrete that has a uniformly dry surface. Protect the newly applied crème from rain until the emulsion has broken and the surface has returned to its concrete colour.

Estimating Data

MasterShield PEL 1150 is available in 20 litre pails.

MasterShield PEL II50

Silane based thixotropic paste hydrophobic impregnant

Storage & Shelf Life

MasterShield PEL II50 has a shelf life of 12 months. Store out of direct sunlight, clear of the ground on pallets protected from rainfall.

Precautions

For the full health and safety hazard information and how to safely handle and use this product, make sure that you obtain a copy of the Safety Data Sheet (SDS) from our office or website.

Disclaimer

MasterShield-PEL II50 -ANZ-V2-II25

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