

X4™

X4 DESCRIPTION

X4 is a water-based, solventless silane/siloxane emulsion. It is a high quality, general-purpose water repellent for impregnating and priming mineral surfaces. Moreover, X4 can be used for the mass treatment of non-load bearing concrete products.

PROPERTIES

X4 contains a stabilized mixture of silanes and siloxanes that is susceptible to hydrolysis. Hydrolysis occurs only after application to the substrate, which breaks the emulsion. Alcohol is released and the emulsion is converted into a silicone resin water repellent.

X4 reduces capillary absorption of the building which it has penetrated, but does not clog pores or capillaries. There is therefore little or no impairment of the building material's ability to "breathe".

SPECIAL FEATURES

X4 shows the following special features:

- good depth penetration
- resistance to alkalis
- rapid development of water repellence
- provides good adhesion for paints
- water based and environmentally friendly
- stable in storage

APPLICATION

X4 is an excellent water repellent for many absorbent mineral substrates, such as bricks, sand-lime brick, natural sandstone and mineral plasters. It is not suitable for less absorbent, dense natural stone, especially limestone, marble and reinforced concrete for bridges and roads. Owing to its aqueous consistency and storage stability, X4 is ideal for implant impregnation of building materials made of clay, aerated concrete, sand-lime brick, fibrous cement, mineral fibers and lightweight aggregate.

X4 may also serve as a water repellent primer for emulsion paints and plasters, silicone resin emulsion paints and silicone resin plasters.

PROCESSING

Apply the ready-to-use solution of X4 in the usual way; flooding is the preferred way. Two "wet on wet" coats are needed to ensure complete coverage. Owing to the content of wetting agent in X4, impregnation at a later date does not present any difficulties. If it starts raining, stop treatment and cover the freshly impregnated areas.

For mass impregnation of concrete products an active agent concentration of 50% by weight is recommended. The dosage of the diluted product can be related to the overall mass or the amount of binding agents of the concrete product. If related to the overall mass, a dosage between 0.5 to 5.0% of the 50% dilution of X4 is recommended. If related to the amount of binding agent, a dosage between 5.0 to 20.0% of the 50% dilution of X4 is recommended. In order to keep the water-cement-ratio on a constant level, reduce the amount of mixing water by the amount of water added with the diluted emulsion.

Even though an evaluation exhibited no negative influence of X4 on the mechanical properties of selected concrete recipes, an independent evaluation of the mechanical properties is recommended.

STORAGE

For best results, use X4 within 12 months of purchase. Storage beyond this time frame does not necessarily mean that the product is no longer usable. In this case however, the properties required for the intended use must be checked for quality assurance reasons.

If the product appears to separate, this may be reversed by brief stirring or agitation. This will restore it to a homogeneous emulsion, without loss of efficacy.

SAFETY

Comprehensive instructions are given in the corresponding SDS (Safety Data Sheet). They are available on request from Paradigm Labs, Inc.

PRODUCT DATA

Typical general characteristics	Value
Appearance	milky, white
Active substance content	12.5 wt. %
Density	0.99 g/cm
Viscosity	<50cps
pH-Value	approx. 8

APPLICATIONS ASSISTANCE

For additional information about X4, contact Enviroguard at (828) 548-3900 or send an email to info@EnviroguardDirect.com

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