

Technical Data Sheet Protectosil® DRY CIT

Highly efficient corrosion protection additive for cementitious building materials.

PRODUCT DESCRIPTION

Highly efficient, in water redispersible powdery corrosion protection additive based on a multifunctional silane system for cementitious building materials.

Typical Properties		
Property	Unit	Value
Appearance		free flowing white powder
Dry weight	%	>98
pH Value (10% in water)		6-9
Powder density DIN EN ISO 60	g/l	340 - 540
Residual moisture DIN 22719	%	<2
Water soluble chloride EN 480-10	%	<0.1

The data represents typical values (no product specification)

TYPICAL APPLICATIONS

Protectosil® DRY CIT is especially suited for

- modification of cement based materials
- maintenance works for concrete structures such as parking decks, facades, balconies, walkways, piers, bridge decks, beams and columns based on concrete
- maintenance work for concrete structures exposed to high chloride marine environments, e.g. tidal zones and harbor constructions
- maintenance work for concrete structures exposed to deicing salts, e.g. tunnels, highways, bridges and parking decks
- concrete repair mortars according to EN 1504-3 and EN 1504-7

BENEFITS & ADVANTAGES

Protectosil[®] DRY CIT

- is part of cement-based dry mortar formulations
- forms an in-situ protection layer on steel reinforcement during the setting phase
- protects embedded steel reinforcement against pitting corrosion caused by chloride concentrations above the critical threshold
- provides significant reduction of water uptake
- modified mortar mix designs show excellent wetting properties during processing

DOSAGE

The recommended dosage of Protectosil® DRY CIT for concrete repair mortar is 0.3 - 1.0 wt% based on weight of dry mortar and 2.0 - 3.0 wt% based on cement weight in concrete mixes.

HANDLING & PROCESSING

Protectosil[®] DRY CIT can be handled in all standard compulsory mixers for powdery cement based products. Potential interactions with further additives have to be tested.

Protectosil® DRY CIT containing formulations are smoothly miscible with water. It is recommended to stir the Protectosil® DRY CIT containing end formulation into the mixing water using the appropriate vessel and mixer. A ripening time of 1 - 5 min, depending on the used additives, has to be considered prior to the application.

Corrosion protection functionality was confirmed by a test series performed by the Swiss Society for Corrosion Protection (SGK).

In-House corrosion activity monitoring testing with embedded rebars in mortar specimen provide proof for longterm effectiveness (several decades).

Non modified reference specimen have shown immediate corrosion activity shortly after testing was started followed by cracking with increasing width.

Mortars containing Protectosil[®] DRY CIT have not shown any corrosion activity or cracking over the whole testing period, which corresponded to a time period of more than 50 years in the field.





STORAGE

The product should be stored under dry conditions and ideally at temperatures below 30 °C. Bags that are stored under pressure, were damaged or have been left open for longer periods of time tend to contain agglutinated material.

SHELF LIFE

Protectosil[®] DRY CIT has a shelf life of at least 12 months when stored in originally sealed containers.

PACKAGING

Protectosil[®] DRY CIT is supplied in 15 kg paper bags with polyethylene inliners and palettes with 45 paper bags at 15 kg each (675 kg). Other packages such as big bags or silo transport vehicles are available upon request.

SAFETY

Before considering the use of Protectosil[®] products please read its Safety Data Sheet (SDS) thoroughly for safety and toxicological data as well as for information on proper transportation, storage and use.

The Safety Data Sheet is available on our website https:// silanes.evonik.com/en or upon request from your local representative, customer service or from Evonik Operations GmbH, Product Safety Department, E-MAIL sds-hu@evonik.com.

Registration Listings		
Registry	Status	
Australia (AIIC)	Yes	
Canada (DSL)	Information upon request	
China (IECSC)	Information upon request	
European Union (EINECS/ELINCS)	Yes	
Japan (ENCS)	Yes	
South Korea (KECL)	Yes	
Philippines (PICCS)	Yes	
United States of America (TSCA)	Yes	

For further information visit our Customer Portal



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