

## TERAFLEX® DRY ANTIFREEZE ADDITIVE

dry construction additive against freezing of concrete and dry construction cement-based mixtures, which allows working at low temperatures up to -4°C

### Scope of use

TERAFLEX® DRY ANTIFREEZE ADDITIVE is designed for use when working at mild winter conditions (expected temperature reductions, mild freezing during the day, expected cold periods) at temperatures not lower than -4°C and not higher than + 10°C. It may be added to all dry construction cement-based mixes. It is recommended when plastering or bonding thermo-insulating materials and applying different types of ceramic and stone linings.

The additive lowers the freezing temperature of the liquid phase of the solution and the water it has been mixed with, maintaining positive temperature of the solution during the process of drying, and at the same time speeds up its hydration and strengthening.

TERAFLEX® DRY ANTIFREEZE ADDITIVE is compatible with all cement-based products from MARISAN's TERAFLEX® and TERMOFLEX® trademarks.



### Properties

low temperature resistant	easy to dose
maintains positive temperature of the solution during the time of drying	

### Composition

Homogenous cement based powder, modified with high quality polymer resinous and cellulose additives.

## Packaging and Indicative consumption

### Package:

1,25 kg paper bags.

### Indicative consumption:

one bag of additive (1,25 kg) should be added to 25 kg dry mixture

## Expiration date and Storage

Store and transport in tightly sealed original packaging in dry environment (best on pallets). Keep away from moisture!

The product is good for use 12 months after production date of an unopened original packaging.

## Instructions for Use

### Mixture preparation

TERAFLEX® DRY ANTIFREEZE ADDITIVE is ready for use.

In a clean stainless steel container pour the necessary amount of clean water without additives in order to stir the dry construction mixture. To that mixture gradually add TERAFLX® DRY ANTIFREEZE ADDITIVE. The solution should be stirred with an electric drill until reaching a homogenous mass without lumps. Then the dry cement-based mixture should be added to it. If necessary add water of dry mixture for reaching the desired density.

**Do not mix with cement, sand and other materials because that causes extreme deterioration of the qualities of the mortar!**

### Hazard description:

Does not contain dangerous chemical substances!

Quantity of soluble chrome (VI) within the ready-made mass of the product is  $\leq 0,0002\%$ .

Risk and Safety Statements	
R 36/37/38	Irritating to eyes, respiratory system and skin
S08	Keep container dry
S 24/25	Avoid eye and skin contact

### Hazard symbol:

**Xi** – Irritating product; contains cement.

## Classification

Complies with the requirements of European and Bulgarian standards and measures up to:

European Standard	Class	Testing protocols
EN 14647	-	№ 397/10.04.2008

## Technical data

Testing protocols are issued by Notified Body (NB 1950) for compliance evaluation with Research Institute of Building Materials NIISM Ltd., Sofia.

Parameter	Measure	Testing method	Testing result
Flexural strength: - after 24 h - after 28 d	MPa	EN 196-1	6,3 7,6
Compressive strength: - after 24 h - after 28 d	MPa	EN 196-1	66,4 79,6
Connection time: - beginning - end	min	EN 169-3	285 365
Adhesion strength of the cement adhesive without additive: - after 28 d - after 25 freeze-thaw cycles	MPa	EN 1348 +A1	2,1 1,5
Adhesion strength of the cement adhesive with 8% additive: - after 28 d - after 25 freeze-thaw cycles	MPa	EN 1348 +A1	2,3 1,5
Reaction to fire	-	EN 13501-1	class A1

The information contained in the current document is based on our knowledge and recent technical achievements and experience that we have at the time of the last version. The technical recommendations concerning application that we offer in order to facilitate buyers and those working with our products are non-binding and are neither grounds for legal contract relations, nor for additional obligations resulting from the purchase contract. They do not dispense buyers from the necessity to verify products' application according to the instructions for every specific use. We as manufacturers guarantee the quality of the product, but cannot influence the circumstances and methods of its use. Application of the product should be performed by qualified personnel.