



FIELD OF USE FOR 4th DIVISION PRODUCTS

ANTIPOLAR

LIQUID ANTIFREEZE ADDITIVE
FOR CEMENT MORTAR AND CONCRETE (WITHOUT CHLORIDES)

PROBLEM

Site cast concrete or plaster mortar often require the use of antifreeze to favour the setting of the cement when the temperature drops below 0°C, thus avoiding damage caused by frost.

DESCRIPTION

ANTIPOLAR is an additive formed from a solution of catalysing salts from the cement hydration process which are suitable for manufacturing cement concrete with or without reinforcement and will be most advantageous when used during winter. ANTIPOLAR accelerates the development of heat hydration in cement, eliminating the risks of freezing at low temperatures. ANTIPOLAR is chloride free.

FIELDS OF USE

ANTIPOLAR is used for casting concrete at temperatures down to -10°C and it is particularly suitable for all of those jobs where the use of chloride based additives would increase the risk of corrosion.

ANTIPOLAR is used for:

- Concrete foundations
- Reinforced or pre-stressed concrete
- Prefabricated concrete
- Cement mortar for plaster, masonry or injection.

COVERAGE

1.5 kg per 100 kg of cement for temperatures down to -4°C; from 3-5 kg of ANTIPOLAR per 100 kg of cement for temperatures down to -10°C.

PRECAUTIONS

The use of ANTIPOLAR does not exclude the meticulous observance of the rules and advice regarding site casting concrete in winter months. (RI-LEM directive for site cast concrete in winter).

- Preferably use cement with a high hydration power (R425, R525).
- Avoid using too little cement (<300 kg/m³).
- Avoid excessively high water/cement ratios.
- Use water at 20°C for the mix.
- Defrost any aggregates before use until they reach a temperature a few degrees above 0°C.
- Work fast.
- Do not cast the concrete on frozen supports.

- Protect the cast concrete with mats, paper bags or plastic sheets.
- If possible, fit the casting into the work plan of the site to coincide with the warmest hours of the day.
- Do not cast if the temperature is expected to drop below -10°C during the following 12 hours.
- Store in tightly sealed containers, protected from frost and from direct sunlight.

SAFETY REGULATIONS

- If the product comes into contact with the eyes, wash immediately with abundant water.
- If swallowed seek medical advice immediately.
- Do not throw residues down the drain.

METHOD OF USE

PREPARATION OF THE MIX

ANTIPOLAR should be dissolved in water before being put into the mixer and should be weighed manually or automatically.

If the aggregates are particularly dry, first soak them in water to prevent an excessive absorption of the additive.

Preparing the mix



ANTI POLAR

TECHNICAL CHARACTERISTICS

Appearance	liquid
Colour	brown
Specific weight (volumetric mass)	1.40±0.02 kg/litre
pH	6.5-7
Ford 4 viscosity at 20°C	12 seconds
Dry residue in weight at 110°C	50%
Calcium chloride content	absent
Shelf life in the original containers	24 months



ADVANTAGES

- Accelerates cement hardening even at low temperatures.
- The final resistance properties are equal to or higher than those of concrete cast without the additive.
- Protects concrete castings and mortar from low temperatures according to the dose used, down to -10°C.
- Not containing chlorides it guarantees the integrity of reinforcement and metal structures.

PRODUCT



PACKAGING

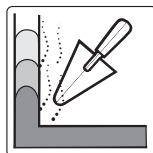
20 kg cans.
5 kg cans.

index
Construction Systems

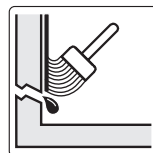
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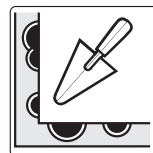
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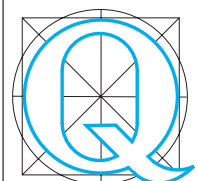
Restoration of damp masonry using damp-proofing renders



Waterproofing with vapour permeable cements



Concrete refurbishment



TOTAL QUALITY
Q.S. ISO 9001

ring the numerous possible uses and the possible interference of conditions or elements beyond our control, we assume no responsibility regarding the results which are obtained. The purchasers, of their own accord and under their own responsibility, must establish the suitability of the product for the envisaged use.

The figures shown are average indicative figures relevant to current production and may be changed or updated by INDEX S.p.A at any time without previous warning. The advice and technical information provided, is what results from our best knowledge regarding the properties and the use of the product. Consider