



# TEKNACEM 402

Grinding and Dry adjuvant.  
Strong resistance to workability and productivity.



## DESCRIPTION

TEKNACEM 402 is a liquid additive in aqueous solution based on modified linear amines that allows to improve the grinding capacity of ball mills. It acts by discharging the particle attraction forces produced during grinding, avoiding the agglomeration of the fines. It is indicated as an adjuvant in the dry grinding of all minerals and particularly in the grinding of cements, to which it gives greater fineness and greater smoothness by reducing their packing during storage. TEKNACEM 402 is part of the family of quality additives as it is a strong increaser of the initial and final resistances.

## GENERAL CHARACTERISTICS

TEKNACEM 402 keeps the mill's grinding bodies and armor clean, increasing their refining efficiency. With the same production, it reduces the energy required and the wear of all parts of the system and maintenance interventions. With the same amount of energy consumed, it increases productivity by 15-30%. On cements, the following advantages are highlighted:

- Increases the specific surface of the finished;
- Improves the homogeneity of cement;
- Gives the cement a good fluidification and reduces the pack-set during storage;
- Improves the wettability of cement and its hydration;
- Improves mechanical strength considerably both at 2 days and at 28 days;
- Reduces the danger of false grip;
- Increases the flow of cementitious mixtures in the wet state;
- It is compatible with all additives for concrete.

## PHYSICAL PROPERTIES

Liquid State  
 Amber Color  
 Density at 20°C 1,10 ± 0.02 g/cm<sup>3</sup> pH at 20°C 10,5 ± 1  
 Absent Chlorides  
 Temp. Boiling 110°C  
 Temp. Freezing < 5°C  
 Negative Flammability Test  
 Solubility in water Total

## HOW TO USE

TEKNACEM 402 is ready to use and is compatible with all other cement additives from TEKNA CHEM SpA. It is placed at the entrance of the mill together with the raw materials through a special dosing pump. In the event that the mill has a variable supply, the pump can be correlated by an automatic adjustment system.

## DOSAGE

The standard dosage of TEKNACEM 402 is 0.04-0.06%. The recommended dosage is 0.05% p.p. on the weight of the cement. Normally the dosage is directly proportional to the content of clinker or the hardest raw materials to grind.

*Overdosage:*





A dosage higher than that established in the preliminary tests can improve grinding capacity and productivity but not mechanical resistance. A dosage double the optimal one can cause excessive fluidification of the cement inside the plant downstream of the mill, creating clogging and spills and a reduction of mechanical resistance to 28 days. The dosage can however be modified according to the type of cement to be added and the desired final characteristics after laboratory tests.

## PACKS

Bulk in tank.

In metal drums of 210 Kg.

In tanks of 1100 Kg.

## APPLICATIONS

TEKNACEM 402 gives better results in the grinding of mixture cements where alongside the increase in production, high mechanical resistances are also sought both initial and final.

## STORAGE

The product should be stored as close as possible to the point of use, protected from the sun and frost. In the original packages well closed and at temperatures between +5 ° C and + 35 ° C is valid for 12 months. If it were to remain at temperatures below 0 ° C for a long time, separations by crystallization may occur, in which case the product can be used after heating to + 20 ° C.

## WARNINGS

**For health:** In case of contact with eyes, wash immediately and abundantly with water and dab with boric acid solution. In case of permanence of irritation resort to the care of the doctor. For accidental contact with the skin, a good wash with soap and water is normally sufficient.

**Accidental loss:** Collect with absorbent material and destroy in landfills, any residues can be removed with water avoiding polluting the aquifers.

## LEGAL

The information contained in this technical sheet, although representing the most advanced stage of knowledge, does not exempt the user from performing accurate preliminary tests in their conditions of use and operation. We therefore decline any responsibility for the improper use of the product.

