



# TEKNACEM 301

Grinding and Dry Adjuvant.  
Incraser of resistance and productivity.



## DESCRIPTION

TEKNACEM 301 is a liquid additive in aqueous solution based on inorganic salts and 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.

## GENERAL CHARACTERISTICS

TEKNACEM 301 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;
- Increases mechanical resistance;
- 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

STATUS:	liquid
COLOR:	amber
DENSITY 20°C: $1,07 \pm 0,02 \text{ g/cm}^3$	$8 \pm 1$
PH 20°C:	$8 \pm 1$
CHLORINE:	absent
TEMP. EBOLLIZ.: 110°C c.	
TEMP. FREEZING TEMPERATURE:	< 5°C
FLAMMABILITY:	non-flammable
SOLUBILITY IN H <sub>2</sub> O:	total

## HOW TO USE

TEKNACEM 301 is ready to use and is compatible with all other cement additives from TEKNA CHEM SpA. It is fed into 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 dosage of TEKNACEM 301 is 0.025-0.045% by weight on the weight of cement. Recommended dosage: 0.035% p.p. on cement weight. Normally the dosage is directly proportional to the content of clinker or the hardest raw materials to grind. A dosage higher than that established in the preliminary tests can improve productivity but not mechanical





resistance. The dosage can however be modified according to the type of cement to be added and the desired final characteristics after laboratory tests. **Surdosaggio:** a double of the optimal dosage further improves the grinding capacity, but 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.

## PACKS

Bulk in tank.  
In metal drums of 200 Kg.  
In tanks of 1050 Kg.

## APPLICATIONS

TEKNACEM 301 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. Due to its characteristics it is suitable for all types of cement but particularly for limestone cements.

## 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.

## 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.

