

MTDA[®] Grinding Aid Pack Set Inhibitor

Grinding Aid/Pack Set Inhibitor

Product Description

MTDA[®] is a special chemical formulation of polyalcohols supplied as a non-toxic opaque liquid miscible with water. It has the following characteristics:

- Specific Gravity: 1.10 - 1.11
- pH: 7 - 12
- Viscosity: 90 cps @ 24°C

Handling

MTDA may be sprayed as received into the mill's first compartment or added onto the clinker conveyor belt. Dilution with up to 8 parts water is recommended to ensure greater proportioning accuracy and better distribution of MTDA.

Suitable proportioning pumps with adjustable flow rates should be used for consistent performance of the additive.

Addition Rates

The dosage rate of MTDA will depend on the fineness and the re-agglomeration characteristics of each cement. Typical dosage rates will vary from 0.01% - 0.05% by weight of cement for Types I & II cements and from 0.04% - 0.08% by weight of cement for Type III cements.

The optimum dosage rate must be determined during full scale cement mill tests.

Product Advantages

- Increased mill output at same cement fineness
- Reduced grinding costs
- Improved cement strengths
- Increased cement flowability
- Easy and safe handling Typical cement mill output increases with MTDA versus Blank as shown in the Table on back.

Dosing Equipment

GCP grinding aids should be accurately dispensed through a calibrated dosing system, suitable for the cement mill and output required.

Specification Compliance

MTDA is approved for use under ASTM C 465 specification as a non-harmful, processing addition for cements.

Packaging

MTDA is supplied in 210 L (55 gal) drums, or in bulk by tanker trucks. It contains no flammable materials.

Storage

Protect from freezing. Once frozen, the product should be thawed out slowly and re-mixed thoroughly prior to use.

Technical Services

Field Engineers from GCP are available to assist in laboratory and mill test evaluations of MTDA. Complete testing equipment and methods for analyzing mill performance and pack set index are also available during plant trials.

MTDA vs Blank – Typical Cement Mill Output

| TYPES OF CEMENT | GRINDING AID USED | DOSAGE RANGE (%) | RELATIVE MILL OUTPUT OF SAME CEMENT FINENESS (%) | TYPICAL PACK SET INDEX | TYPICAL POWER CONSUMPTION (KWH/T) |
|-----------------|-------------------|------------------|--|------------------------|-----------------------------------|
| I & II | Blank MTDA | Nil 0.01 -0.05 | 100 | 50 | 43 |
| | | | 108 - 120 | 12 | 34 |
| III | Blank MTDA | Nil 0.04 -0.08 | 100 | 70 | 54 |
| | | | 115 - 140 | 15 | 43 |