Cement Additives





We have a **Solution** for **Cement** industry...

- Increasing capacity
- Reducing energy cost
- Improve quality
- Increasing additives ratio (Pozzolan, gypsum, slag, lime stone...)
- Increasing Blaine
- Improving Fluidity
- Reducing water demand
- Pack set problem
- Size distribution
- Increasing raw material mill capacity
- Elimination of the agglomeration
- Increasing separator and elevator efficiency And...







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CED 220 Grinding aid for strength increase

Description	Physical and chemical properties	
CED 220 is a kind of additive usable for all types of cement. His main usage is for grinding aid and strength increase CED220 is formulated in order to increase the mechanical resistance of the cement during first days. An increase in mill capacity, A fall in the cost of grinding energy Amelioration of the grinded elements physically and mechanically Strength in grinding either in open or closed systems contraction of the setting time The increase in the fluency of the cement.	 Physical form : Liquid Color : Brown pH (for 20°C) : 8.0 (+/- 1) Specific gravity : 1.200 kg/dm3 (+/- 0.1) (for 20°C) Freezing point : < - 5°C Boiling point : 110°C Active elements : Organic, inorganic and modified amines' dilute dip Packing Bulk 1000 liter plasticize tank 215 liter metal barrel Stocking It has been expended in the first 18 months after the production. CED220 has not to be mixed with other products. 	
Applications	Cautions	
Usable for all types of cement. Operating Instructions Dosage: For 1 tone cement, 1.5 – 3.0 kg CED220 should be used. Optimum dosage should be experimented after industrial trials. Feeding: CED220 should be sprayed into the mill or should be distillate on cement clinker band. Dosage pumps should be used in order to apply optimum dosage to the mill. According to CED220 application, our technical equip is always ready for further help.	Any contact of CED220 with skin could be harmful, wash with water. Any contact with eyes, wash with water and consult to a doctor immediately. Fire: CED220 is not flammable. Cleaning: CED220 could be cleaned with water. Overdose: Dosage should not be over 5 kg/tone.	

CED 224 GRINDING AID - Early age strength enhancer

Description	Physical and chemical properties	
 CED 224 is a grinding aid which is specifically formulated to increase, in specific cases, the early age mechanical strengths of cement. Increase of early (24 and 48 hours) mechanical strengths of the cement. Increased mill production (8% to 14%) depending on the efficiency of the equipment and the characteristics of the material to be ground. Reduced grinding energy costs. Improved physical properties of the ground material. Improved performance in both closed and open circuit systems at equal specific surface area or equal sieve residues. Bulk density is increased. Powder flow characteristics are improved before, during and after storage. Packset tendencies and coating are substantially reduced. The risk of false set is reduced due to the lower grinding temperatures. Cement particle size distribution is improved resulting in more thorough hydration. Reduces plastic shrinkage (initial set). 	 Physical and chemical properties Form Active ingredients Aqueous solution of organic and mineral components. Specific gravity at 20°C 1.330 kg/ dm3 (± 0.015). pH at 20°C 6.1 (± 1.5). Chloride content 16% (± 1). Alkali content 2% Na2O equiv. Other characteristics Colour Light brown. Freezing point < -10°C. Flash point Non flammable product. Dry matter (solids content) : 43%. Packaging Bulk tanker loads (where appropriate). 1000 liter containers and 215 liter drums. Storage The quality is guaranteed for 12 months starting from the manufacturing date provided the product is not altered with other chemicals. Do not mix with any other product. CED 224 will not freeze above -10°C. 	
Method of use	Precautions	
 Grinding of cements according to ENV 197 - 1, type I to V. The use of CED 224 is especially recomended for the manufacture of rapid hardening cement. Method of use Dosage : The dosage range is from 1.2kg to 2.5kg/ metric tone of material to be ground. Industrial trials are required to determine the optimum dosage. Procedure : Liquid admixture ready-to-use. A dosing pump is required to introduce the correct dosage into the mill. CED 224 may be introduced either directly into the mill or onto the feed conveyor belt. Our technicians are ready to provide advice and assistance in the use of CED 224.	 Health and Safety : If CED 224 comes into contact with skin, flush with water immediately. Fire : CED 224 is non flammable. Cleaning : Spillage of CED 224 can be removed with water (refer to Safety Data Sheet). Overdose : Dosages in excess of 3kg/ metric tone should be avoided. 	

CED 225

Grinding aid – early strength improver and water demand reducer

Description

CED 225 is a high efficiency strength improving grinding aid. It is particularly recommended for grinding cements. CED 225 reduces water demand for cement and concrete production, and gives increased early age mechanical strengths of cement.

- Mineral additive rates can be increased.
- Increase of early (24 and 48 hours) mechanical strengths of the cement.
- Cement strength profiles are improved.
- Allows a reduction in water demand in mortars.
- Increased mill production (8% to 15%) depending on the efficiency of the equipment and the characteristics of the material to be ground.
- Reduced grinding energy costs.
- Improved physical properties of the ground material.
- Improved performance in both closed and open circuit systems
- at equal specific surface area or equal sieve residues.
- Bulk density is increased.
- Powder flow characteristics are improved before, during and after storage.
- Packset tendencies and coating are substantially reduced.
- The risk of false set is reduced due to the lower grinding temperatures.
- Cement particle size distribution is improved resulting in more thorough hydration.
- Reduces plastic shrinkage (initial set).

Physical and chemical properties

- Form
- Active ingredients
- Specific gravity at 20°C
- pH at 20°C
- Chloride content

Other characteristics

- : Brown.
- : -8°C
- :Non flammable product.
- Flash point

Freezing point

Packaging

- Bulk tanker loads (where appropriate).
- 1000 liter containers and 215 liter drums.

Storage

Colour

The quality is guaranteed for 12 months starting from the manufacturing date provided the product is not altered with other chemicals. Do not mix with any other product. CED 225 will not freeze above -8°C.

Applications

• Grinding of cements according to ENV 197-1, type I to V.

Directions for use

Dosage: The dosage range is from 0.5kg to 0.8kg/ metric tone of material to be ground. Industrial trials are required to determine the optimum dosage.

Procedure: Liquid admixture ready-to-use.

A dosing pump is required to introduce the correct dosage into the mill.

CED 225 may be introduced directly into the mill or onto the feed conveyor belt. Our technicians are ready to provide advice and assistance in the use of CED 225.

Precautions

Health and Safety: If CED 225 comes into contact with skin, flush with water immediately.

Fire: CED 225 is non flammable.

Cleaning: Spillage of CED 225 can be removed with water (refer to Safety Data Sheet).

Overdose: Dosages in excess of 3kg/ metric tone should be avoided.

: Liquid.
: Aqueous solution of organic components.
: 1.205 kg/dm3 (± 0.015).

: 8.0 (± 1.5).

: 7.8% (± 1).



MYS GROUP»

MYS 300 Grinding aid – High performance

Description Physical and chemical properties MYS 300 is a high performance economical grinding aid which Physical state : Liquid is specifically formulated for all types of cement in order to Colour : Brown increase mill capacity. Active ingredients : Modified hydroxyl amines • pH (20°C) : 8.5 (+/-1,0) • Increased mill production (5% to 12%) depending on the Specific gravity at 20°C : 1.125 kg/dm3 +/- 0,01 • Freezing point : < - 15°C efficiency of the equipment and the characteristics of the Chloride content material to be ground. : < % 0.1 Reduced grinding energy costs. : Not flammable • Flash point Improved physical properties of the ground material. Active ingredient : N.A. • Improved performance in both closed and opencircuit systems Alkali Content : < %1 Na2O equiv. at equal specific surface area or equal sieve residues. • Bulk density is increased. Packaging • Powder flow characteristics are improved before, during and • Bulk tanker loads (where appropriate). • 1000 liter containers and 215 liter drums. after storage. • Packset tendencies and coating are substantially reduced. • The risk of false set is reduced due to the lower grinding Storage The quality is guaranteed for 18 months starting from the temperatures. Cement particle size distribution is improved resulting in more manufacturing date provided the product is not altered with thorough hydration. other chemicals. Do not mix with any other product. Reduces plastic shrinkage (initial set). MYS 300 will not freeze above -15°C. Applications Precautions Applicable for all types of cement Health and Safety: If MYS 300 comes into contact with skin, flush with water immediately. **Directions for use** Dosage : The dosage range is from 0.3kg to Fire: MYS 300 is non flammable (F.P.>100°C). 0.8kg/ metrictone of material to be ground. Industrial trials are Cleaning: Spillage of MYS 300 can be removed with water. required to determine the optimum dosage. Procedure: A dosing pump is required to introduce the correct Overdose: Dosages in excess of 3kg/ metric tone should be dosage into the mill. avoided. MYS 300 may be introduced directly into the mill or onto the feed conveyor belt. Our technicians are ready to provide advice and assistance in the use of MYS 300.

MYS 310 GRINDING AID- High performance

Description	Physical and chemical properties	
 MYS 310 is a high performance grinding aid which is specifically formulated for fine cements in order to increase mill capacity. Increased mill production (8% to 20%) depending on the efficiency of the equipment and the characteristics of the material to be ground. Reduced grinding energy costs. Improved physical properties of the ground material. Improved performance in both closed and open circuit systems at equal specific surface area or equal sieve residues. Bulk density is increased. Powder flow characteristics are improved before, during and after storage. Packset tendencies and coating are substantially reduced. Cement particle size distribution is improved resulting in more thorough hydration. Reduces plastic shrinkage (initial set). 	 Physical state : Liquid Colour : Brown Active ingredients : Modified hydroxyl amines pH (20°C) : 6.0 (+/-1,0) Specific gravity at 20°C : 1.180 kg/dm3 +/-0,01 Freezing point : < - 15°C Chloride content : < % 0.1 Flash point : NA. Alkali Content : < %1 Na2O equiv. Packaging Bulk tanker loads (where appropriate). 1000 liter containers and 215 liter drums. Storage The quality is guaranteed for 12 months starting from the manufacturing date provided the product is not altered with other chemicals. Do not mix with any other product. MYS 310 will not freeze above -15°C.	
Applications	Precautions	
As it is required to use with high mineral included cement, it can be used for all types of cement. Directions for use Dosage : The dosage range is from 0.2kg to 0.5kg/ metrictone of material to be ground. Industrial trials are required to determine the optimum dosage. Procedure: A dosing pump is required to introduce the correct dosage into the mill. MYS 310 may be introduced directly into the mill or onto the feed conveyor belt. Our technicians are ready to provide advice and assistance in the use of MYS 310.	 Health and Safety: If MYS 310 comes into contact with sk flush with water immediately. Fire: MYS 310 is non flammable (F.P.>100°C). Cleaning: Spillage of MYS 310 can be removed with water. Overdose: Dosages in excess of 3kg/ metric tone should be avoided. 	



MYS 330 GRINDING AID- Strength Enhancer

Description	Physical and chemical properties	
 MYS 330 is a grinding aid which is specifically formulated to increase the mechanical strengths of cement. Especially early-age mechanical strength is concerned. Increased mill production (5% to 12%) depending on the efficiency of the equipment and the characteristics of the material to be ground. Increase of early mechanical strength of the cement. Reduced grinding energy costs. Improved performance in both closed and open circuit systems 	 Physical state : Liquid Colour : Brown Active ingredients : Modified hydroxyl amines pH (20°C) : 9.5 (+/-1,0) Specific gravity at 20°C : 1.185 kg/dm3 +/-0,01 Freezing point : < -15°C Flash point : Not flammable Alcali ingredient : Equivalent of 1% Na2O Packaging Bulk tanker loads (where appropriate). 1000 liter containers and 215 liter drums. Storage The quality is guaranteed for 18 months starting from the manufacturing date provided the product is not altered with other chemicals. Do not mix with any other product.	
Applications	Precautions	
 Applicable for all types of cement Directions for use Dosage: The dosage range is from 0.3kg to 1.0kg/ metrictone of material to be ground. Industrial trials are required to determine the optimum dosage. Procedure: A dosing pump is required to introduce the correct dosage into the mill. MYS 330 may be introduced directly into the mill or onto the feed conveyor belt. Our technicians are ready to provide advice and assistance in the use of MYS 330. 	 Health and Safety: If MYS 330 comes into contact with skin, flush with water immediately. Fire: MYS 330 is non flammable (F.P.>100°C). Cleaning: Spillage of MYS 330 can be removed with water. Overdose: Dosages in excess of 3kg/ metric tone should be avoided. 	

MYS 340 GRINDING AID- Economical and High performance

Description	Physical and chemical properties	
 MYS 340 is a high performance economical grinding aid which is specifically formulated for all types of cement in order to increase mill capacity. Increased mill production (5% to 12%) depending on the efficiency of the equipment and the characteristics of the material to be ground. Reduced grinding energy costs. Improved physical properties of the ground material. Improved performance in both closed and open circuit systems at equal specific surface area or equal sieve residues. Bulk density is increased. Powder flow characteristics are improved before, during and after storage. Packset tendencies and coating are substantially reduced. The risk of false set is reduced due to the lower grinding temperatures. Cement particle size distribution is improved resulting in more thorough hydration. Reduces plastic shrinkage (initial set). 	 Physical state : Liquid Colour : Brown Active ingredients : Modified hydroxyl amines pH (20 °C) : 9.0 (+/-1,0) Specific gravity at 20°C : 1.070 kg/dm3 +/-0,01 Freezing point : < - 15°C Chloride content : < % 0.1 Flash point : Not flammable Active ingredient : N.A. Alkali Content : < %1 Na2O equiv. Packaging Bulk tanker loads (where appropriate). 1000 liter containers and 215 liter drums. Storage The quality is guaranteed for 18 months starting from the manufacturing date provided the product is not altered with other chemicals. Do not mix with any other product. MYS 340 will not freeze above -15°C.	
Applications	Precautions	
Applicable for all types of cement	Health and Safety: If MYS 340 comes into contact with skin, flush with water immediately	
Directions for use Dosage: The dosage range is from 0.3kg to 1.0kg metrictone of material to be ground. Industrial trials are required to determine the optimum dosage.	Fire: MYS 340 is non flammable (F.P.>100°C). Cleaning: Spillage of MYS 340 can be removed with water.	
Procedure: A dosing pump is required to introduce the correct dosage into the mill. MYS 340 may be introduced directly into the mill or onto the feed conveyor belt. Our technicians are ready to provide advice and assistance in the use of MYS 340.	t Overdose: Dosages in excess of 3kg/ metric tone should be avoided.	

MYS 350 Grinding aid for whit cement

Description	Physical and chemical properties	
 MYS 350 is a high performance economical grinding aid which is specifically formulated for white cement in order to increase mill capacity. Improved performance in both closed and open circuit systems at equal specific surface area or equal sieve residues. Increased mill production (12% to 30%) depending on the efficiency of the equipment and the characteristics of the material to be ground. Reduced grinding energy costs. Improved physical properties of the ground material. Cement particle size distribution is improved resulting in more thorough hydration. Reduces plastic shrinkage (initial set) Powder flow characteristics are improved before, during and after storage. Packset tendencies and coating are substantially reduced. 	 Physical state : Liquid Colour : Colourless pH (20°C) : 11 ± 1 Specific gravity : 1.06 ± gr/cm3 Chloride content : < % 0.1 Alkali Content : < %1 Na2O equiv. Packaging Bulk tanker loads (where appropriate). 1000 liter containers and 215 liter drums. Storage The quality is guaranteed for 18 months starting from the manufacturing date provided the product is not altered with other chemicals. Do not mix with any other product. MYS 350 will not freeze above -15°C.	
Applications	Precautions	
Our technicians are ready to provide advice and assistance in the use of MYS 400 Directions for use Dosage: The dosage range is from 0.2kg to 0.7kg per metrictone of material to be ground. Industrial trials are required to determine the optimum dosage. Procedure: A dosing pump is required to introduce the correct dosage into the mill. MYS 350 may be add directly into the mill or onto the feed conveyor belt. Our technicians are ready to assistance in the use of MYS 350	 Health and Safety: If MYS 350 comes into contact with skin, flush with water immediately. Fire: MYS 350 is non flammable (F.P.>100°C). Cleaning: Spillage of MYS 350 can be removed with water. Overdose: Dosages in excess of 3kg/ metric tone should be avoided. 	

MYS 400 GRINDING AID- Strength Enhancer

Description	Physical and chemical properties	
 MYS 400 is a grinding aid which is specifically formulated to increase the mechanical strengths of cement. Especially early-age mechanical strength is concerned. Increased mill production Reduced grinding energy costs. Improved physical properties of the ground material. Improved performance in both closed and open circuit systems at equal specific surface area or equal sieve residues. Bulk density is increased. Powder flow characteristics are improved before, during and after storage. Packset tendencies and coating are substantially reduced. 10 to 30 minutes reduction of setting time Cement particle size distribution is improved resulting in more thorough hydration. Reduces plastic shrinkage (initial set). 	 Physical state : Liquid Colour : Brown Active ingredients : Aqueous solution of organic, inorganic and modified amines pH (20°C) : 10.1 (+/-1,0) Specific gravity at 20°C : 1.190 kg/dm3 +/- 0,01 Freezing point : < - 5°C Flash point : 110°C Packaging Bulk tanker loads (where appropriate). 1000 liter containers and 215 liter drums. Storage The quality is guaranteed for 12 months starting from the manufacturing date provided the product is not altered with other chemicals. Do not mix with any other product. MYS 400 will not freeze above -5°C.	
Applications	Precautions	
 Applicable for all types of cement Directions for use Dosage: The dosage range is from 1.5kg to 3.0kg/ metrictone of material to be ground. Industrial trials are required to determine the optimum dosage. Procedure: A dosing pump is required to introduce the correct dosage into the mill. MYS 400 may be introduced directly into the mill or onto the feed conveyor belt. Our technicians are ready to provide advice and assistance in the use of MYS 400 	 Health and Safety: If MYS 400 comes into contact with skin flush with water immediately. Fire: MYS 400 is non flammable (F.P.>100°C). Cleaning: Spillage of MYS 400 can be removed with water. Overdose: Dosages in excess of 5kg/ metric tone should be avoided. 	

MYS 410 GRINDING AID- Strength Enhancer

Description	Physical and chemical properties		
 MYS 410 is a grinding aid which is specifically formulated to increase the mechanical strengths of cement. Especially early-age mechanical strength is concerned. Increased mill production Reduced grinding energy costs. Improved physical properties of the ground material. Improved performance in both closed and open circuit systems at equal specific surface area orequal sieve residues. Bulk density is increased. Powder flow characteristics are improved before, during and after storage. Packset tendencies and coating are substantially reduced. 10 to 30 minutes reduction of setting time Cement particle size distribution is improved resulting in more thorough hydration. Reduces plastic shrinkage (initial set). 	 Physical state : Liquid Colour : Brown Active ingredients : Aqueous solution of organic, inorganic and modified amines pH (20°C) : 9.50 (+/-1,0) Specific gravity at 20°C : 1.200 kg/dm3 +/-0,01 Freezing point : < - 5°C Flash point : 110°C Packaging Bulk tanker loads (where appropriate). 1000 liter containers and 215 liter drums. Storage The quality is guaranteed for 12 months starting from the manufacturing date provided the product is not altered with other chemicals. Do not mix with any other product. MYS 410 will not freeze above -5°C.		
Applications	Precautions		
 Applicable for all types of cement Directions for use Dosage: The dosage range is from 1.0kg to 3.0kg/ metrictone of material to be ground. Industrial trials are required to determine the optimum dosage. Procedure: A dosing pump is required to introduce the correct dosage into the mill. MYS 410 may be introduced directly into the mill or onto the feed conveyor belt. Our technicians are ready to provide advice and assistance in the use of MYS 410. 	 Health and Safety: If MYS 410 comes into contact with skin, flush with water immediately. Fire: MYS 410 is non flammable (F.P.>100°C). Cleaning: Spillage of MYS 410 can be removed with water. Overdose: Dosages in excess of 5kg/ metric tone should be avoided. 		

MYS 430 GRINDING AID – Economical and High performance

Description	Physical and chemical properties	
 MYS 430 is a high performance economical grinding aid which is specifically formulated for all types of cement in order to increase mill capacity. Increased mill production (5% to 12%) depending on the efficiency of the equipment and the characteristics of the material to be ground. Reduced grinding energy costs. Improved physical properties of the ground material. Improved performance in both closed and open circuit systems at equal specific surface area or equal sieve residues. Bulk density is increased. Powder flow characteristics are improved before,during and after storage. Packset tendencies and coating are substantially reduced. The risk of false set is reduced due to the lower grinding temperatures. Cement particle size distribution is improved resulting in more thorough hydration. Reduces plastic shrinkage (initial set). 	Physical state: Liquid• Physical state: Liquid• Colour: Brown• Active ingredients: Modified hydroxyl amines• pH (20°C): 9.0 (+/-1,0)• Specific gravity at 20°C: 1.120 kg/dm3 +/- 0,01• Freezing point: < - 15°C	
Applications	Precautions	
Applicable for all types of cement	Health and Safety: If MYS 430 comes into contact with skin,	
Directions for use Dosage: The dosage range is from 0.3kg to 1.0kg/ metrictone of material to be ground. Industrial trials are required to determine the optimum dosage.	Fire: MYS 430 is non flammable (F.P.>100°C). Cleaning: Spillage of MYS 430 can be removed with water.	
Procedure: A dosing pump is required to introduce the correct dosage into the mill. MYS 430 may be introduced directly into the mill or onto the feed conveyor belt. Our technicians are ready to provide advice and assistance in the use of MYS 430	Overdose: Dosages in excess of 3kg/ metric tone should be avoided.	



MYS 510 GRINDING AID- Strength Enhancer

Description	Physical and chemical properties	
 MYS 510 is a grinding aid which is specifically formulated to increase the mechanical strengths of cement. Especially early-age mechanical strength is concerned. Increase of early mechanical strength of the cement. Long term strengths are maintained. Increased mill production. 10 to 30 minutes reduction of setting time Improvment of the fluency of the cement Reduced grinding energy costs. Improved performance in both closed and open circuit systems 	 Physical state : Liquid Colour : Brown Active ingredients : Aqueous solution of organic, inorganic and modified amines pH (20°C) : 9.5 (+/-1,0) Specific gravity at 20°C : 1.165 kg/dm3 +/- 0,01 Freezing point : < - 5°C Flash point : 110°C Packaging Bulk tanker loads (where appropriate). 1000 liter containers and 215 liter drums. Storage The quality is guaranteed for 12 months starting from the manufacturing date provided the product is not altered with other chemicals. Do not mix with any other product. MYS 510 will not freeze above -5°C. 	
Applications	Precautions	
Applicable for all types of cement Directions for use Dosage: The dosage range is from 0.7kg to 1.2kg/ metrictone of material to be ground. Industrial trials are required to determine the optimum dosage. Procedure: A dosing pump is required to introduce the correct dosage into the mill. MYS 510 may be introduced directly into the mill or onto the feed conveyor belt. Our technicians are ready to provide advice and assistance in the use of MYS 510.	 Health and Safety: If MYS 510 comes into contact with skin, flush with water immediately. Fire: MYS 510 is non flammable (F.P.>100°C). Cleaning: Spillage of MYS 510 can be removed with water. Overdose: Dosages in excess of 3kg/ metric tone should be avoided. 	



DEX GROUP»

DEX 110

Grinding aid –formulated as a strength improver and water reducer

Description DEX 110 is a high efficiency, strength improving grinding aid. • Form : Liquid. Active ingredients : Aqueous solution of organic It is particularly recommended for grinding cements. DEX 110 reduces substantially water demand for cement and concrete components. production, and gives increased mechanical strengths of the • Specific gravity at 20°C : 1.220 kg/dm3 (± 0.015). • PH at 20°C cement. : 8.5 (± 1.5). Chloride content : < 0.4%. Alkali content • Mineral additive rates can be significantly increased. : 24% Na2O equiv. · Cement strength profiles are improved. Allows measurable reduction in water demand in the order Other characteristics of 1-2 %. Colour : Brown. • Increased mill production (10% to 25%) depending on the • Freezing point : < -10°C. efficiency of the equipment and the characteristics of the • Flash point : Non flammable product. material to be ground. • Dry matter (solids content) : 37%. • Reduced grinding energy costs. • Improved physical properties of the ground material. Packaging • Improved performance in both closed and open circuit systems Bulk tanker loads (where appropriate). at equal specific surface area or equal sieve residues. 1000 liter containers and 215 liter drums. Bulk density is increased. · Powder flow characteristics are improved before, during and Storage The quality is guaranteed for 12 months starting from the after storage. • Pack set tendencies and coating are substantially reduced. manufacturing date provided the product is not altered with The risk of false set is reduced due to the lower grinding other chemicals. Do not mix with any other product. temperatures. DEX 110 will not freeze above -10°C. Cement particle size distribution is improved resulting in more thorough hydration.

Reduces plastic shrinkage (initial set).

Physical and chemical properties

Applications

Grinding of cements according to ENV 197-1, type 1 to V.

Directions for use

Dosage: The dosage range is from 1.2kg to 2kg/ metric tone of material to be ground. Industrial trials are required to determine the optimum dosage.

Procedure: Liquid admixture ready-to-use. A dosing pump is required to introduce the correct dosage into the mill.

Our technicians are ready to provide advice and assistance in the use of DEX 110 may be introduced directly into the mill or onto the feed conveyor belt.

Precautions

Health and Safety: If DEX 110 comes into contact with skin, flush with water immediately. In case of contact with eyes, flush with water immediately and rinse with diluted boric acid solution, seek medical advice.

Fire: DEX 110 is non flammable.

Cleaning: Spillage of DEX 110 can be removed with water (refer to Safety Data Sheet).

Overdose: Dosages in excess of 3kg/ metric tone should be avoided.



EDE 100 GRINDING AID - high performance

Description	Physical and chemical properties	
 EDE100 is an admixture specifically formulated to improve the grinding of minerals. EDE100 is particularly recommended for grinding cements. Increased mill production (10% to 25%) depending on the efficiency of the equipment and the characteristics of the material to be ground. Reduced grinding energy costs. Improved physical properties of the ground material. Improved performance in both closed and open circuit systems at equal specific surface area or equal sieve residues. The mechanical strengths of cements are maintained or increased at all ages. Bulk density is increased. Powder flow characteristics are improved before, during and after storage. Pack set tendencies and coating are substantially reduced. The risk of false set is reduced due to the lower grinding temperatures. Cement particle size distribution is improved resulting in more thorough hydration. Reduces plastic shrinkage (initial set). 	 Form : Liquid. Active ingredients : Modified hydroxyl Ted amines. Specific gravity at 20°C : 1.145 kg/dm3 (± 0.015). pH at 20°C : 7.2 (± 1.5). Chloride content : <0.1%. Alkali content : <1% Na2O equiv. Other characteristics Colour : Brown. Freezing point : < -15°C. Flash point : Non flammable product. Dry matter (solids content) : 63%. Packaging Bulk tanker loads (where appropriate). 1000 liter containers and 215 liter drums. Storage The quality is guaranteed for 12 months starting from the manufacturing date provided the product is not altered with other chemicals. Do not mix with any other product.	
Applications	Precautions	
Grinding cements according to ENV 197-1, type I to V, and also aluminous cements. Directions for use Dosage: The dosage range is from 0.2kg to 0.5kg/ metric tone of material to be ground. Industrial trials are required to determine the optimum dosage. Procedure: Liquid admixture ready-to-use. A dosing pump is required to introduce the correct dosage into the mill. EDE100 may be introduced directly into the mill or onto the feed	 Health and Safety: If EDE100comes into contact with skin, flush with water immediately. Fire: EDE100 is non flammable. Cleaning: Spillage of EDE100 can be removed with water (refer to Safety Data Sheet). Overdose: Dosages in excess of 3kg/ metric tone should be avoided. 	
conveyor belt. Our technicians are ready to provide advice and assistance in the use of EDE100.		1

EDE 114 High performance grinding aid

Description	Physical and chemical properties
 EDE 114 is a high performance grinding aid which is specifically formulated(for fine cement) in order to increase mill capacity. Increased mill production (8% to 20%) depending on the efficiency of the equipment and the characteristics of the material to be ground. Reduced grinding energy costs. Improved physical properties of the ground material. Improved performance in both closed and open circuit systems at equal specific surface area or equal sieve residues. Bulk density is increased. Powder flow characteristics are improved before, during and after storage. Packset tendencies and coating are substantially reduced. Cement particle size distribution is improved resulting in more thorough hydration. Reduces plastic shrinkage (initial set). 	 Physical state : Liquid Colour : Brown Active ingredients : Modified hydroxyl amines pH (20oC) : 9.50 (+/-1,0) Specific gravity at 20oC : 1.150 kg/dm3 +/- 0,01 Freezing point : < - 15oC Chloride content : < % 0.1 Flash point : Not flammable Active ingredient : N.A. Alkali Content : < %11 Na2O equiv. Packaging Bulk tanker loads (where appropriate). 1000 liter containers and 215 liter drums. Storage The quality is guaranteed for 18months starting from the manufacturing date provided the product is not altered with other chemicals. Do not mix with any other product. EDE 114 will not freeze above -15°C.
Applications	Precautions
As it is required to use with high mineral included cement , it can be used for all types of cement. Directions for use Dosage: The dosage range is from 0.2kg to 0.5kg/ metrictone of material to be ground. Industrial trials are required to determine the optimum dosage. Procedure: A dosing pump is required to introduce the correct dosage into the mill. EDE 114 may be introduced directly into the mill or onto the feed conveyor belt. Our technicians are ready to provide advice and assistance in the use of EDE 114.	 Health and Safety: If EDE 114 comes into contact with skin, flush with water immediately. Fire: EDE 114 is non flammable (F.P.>100°C). Cleaning: Spillage of EDE 114 can be removed with water. Overdose: Dosages in excess of 3kg/ metric tone should be avoided.

EDE 156 GRINDING AID – high performance, new generation

Description	Physical and chemical properties	
 EDE 156 is an admixture specifically formulated to improve the grinding properties of cements. Increased mill production (8 % to 18 %). Reduced grinding energy costs Improved physical properties of cement Improved performance in both open and closed circuit systems. 	 Form : Liquid Colour : Light Brown Active Ingredients : Aqueous solution of hydroxyl Ted amine components Specific Gravity at 20°C : 1.08 kg/dm3.(± 0.01) pH at 20°C : 7 (± 0.5) Freezing Point : - 5°C. Chloride Content : < 0.04 %. Flash point : 80°C Dry matter (solids content) : 46 %. Alkali content : < 0.07 % Na2O equiv. Packaging Bulk tanker loads (where appropriate). 1000 litter containers and 215 litter drums Storage The quality is guaranteed for 18 months from the date of manufacture.	
Applications	Precautions	
 Grinding of cements according to ENV 197-1, type I to V, and aluminous cements. Directions for use Dosage: The dosage range is from 0.2 kg to 0.8 kg/metric ton of material to be ground. The optimum dosage should be determined by industrials trials. Warning: In curtains circumstances EDE 156 may cause an increase in air contents. Trials should be conducted and air contents checked before full scale production is undertaken. Procedure: EDE 156 is ready-to-use. A dosing pump is required to introduce the correct dosage into the mill. EDE 156 may be introduced directly into the mill or on to the food converse holt. 	 Health and Safety: If EDE 156comes in contact with skin, flush with water immediately. In case of contact with eyes, flush with water immediately and rinse with diluted boric acid solution; seek medical advice. Cleaning: Spillage of EDE 156 can be removed with water (refer to Safety Data Sheet). Over dosage: Dosages in excess of 1kg/metric ton should be avoided. 	

EDE 159 GRINDING AID – high performance, new generation

Description	Physical and chemical properties
 EDE 159 is an admixture specifically formulated to improve the grinding properties of cements. Increased mill production (5 % to 15 %). Reduced grinding energy costs Improved physical properties of cement Improved performance in both open and closed circuit systems. 	 Form : Liquid Colour : Light Brown Active Ingredients : Aqueous solution of hydroxyl Ted amine components Specific Gravity at 20°C : 1.08 kg/dm3.(± 0.01) pH at 20°C : 7 (± 0.5) Freezing Point : - 5°C. Chloride Content : < 0.04 %. Flash point : 80°C Dry matter (solids content) : 46 %. Alkali content : < 0.07 % Na2O equiv. Packaging Bulk tanker loads (where appropriate). 1000 litter containers and 215 litter drums Storage The quality is guaranteed for 18 months from the date of manufacture. EDE 159 must not be mixed with any other product. Below -5°C EDE 159 may form crystals. If crystallisation occurs agitate at 5°C or higher temperature until reconstituted.
Applications	Precautions
 Grinding of cements according to ENV 197-1, type I to V, and aluminous cements. Directions for use Dosage: The dosage range is from 0.2 kg to 0.8 kg/metric ton of material to be ground. The optimum dosage should be determined by industrials trials. Warning: In curtains circumstances EDE 159may cause an increase in air contents. Trials should be conducted and air contents checked before full scale production is undertaken. Procedure: EDE 159 is ready-to-use. A dosing pump is required to introduce the correct dosage into the mill. EDE 159 may be introduced directly into the mill or on to the feed conveyor belt. 	 Health and Safety: If EDE 159 comes in contact with skin, flush with water immediately. In case of contact with eyes, flush with water immediately and rinse with diluted boric acid solution; seek medical advice. Cleaning: Spillage of EDE 159 can be removed with water (refer to Safety Data Sheet). Over dosage: Dosages in excess of 1kg/metric ton should be avoided.



EDE 164 Grinding aid – High performance water reducer

Description	Physical and chemical properties	
EDE 164 is an admixture specifically formulated to improve	• Form	Liquid
the arinding of minerals EDE164 is particularly recommended	Active ingredients	· Aqueous solution of organic
for grinding computer EDE 164 can reduce water demand for	Active ingredients	components
rement and concrete production, and give increased early age	• Specific arayity at 20°C	$\cdot 1.165 \text{ kg/dm}3 (+ 0.015)$
mechanical strengths of the cement	• PH at 20°C	$\cdot 70(+15)$
	Chloride content	: <0.05%
Increased mill production (10% to 25%) depending on the	Alkali content	: <1% Na2O equiv
efficiency of the equipment and the characteristics of the		
material to be ground.	Other characteristics	
• Reduced grinding energy costs.	Colour	: Brown.
 Improved physical properties of the ground material. 	Freezing point	: < -15°C.
 Improved performance in both closed and open circuit systems 	Flash point	: Non flammable product.
at equal specific surface area or equal sieve residues.	Dry matter (solids content)	: 63%.
• The mechanical strengths of cements are maintained or	· · · · · · · · · · · · · · · · · · ·	
increased at later ages.	Packaging	
Bulk density is increased.	Bulk tanker loads (where appropriate).	
• Powder flow characteristics are improved before, during and	1000 liter containers and 215 liter drums.	
after storage.		Charles and the second second
• Pack set tendencies and coating are substantially reduced.	Storage The quality is guaranteed for 12 months starting from the	
• The risk of false set is reduced due to the lower grinding		
temperatures.	manufacturing date provide	d the product is not altered with
• Cement particle size distribution is improved resulting in more	other chemicals. Do not mix	with any other product.
thorough hydration.	EDE 164 will not freeze abo	ve -15°C.
 Reduces plastic shrinkage (initial set). 	A Print a barrain in	1.000
	100 ST - 100	
Applications	Precautions	
Grinding of cements according to ENV 197-1, type I to V, and	Procedure: If EDE 164 co	mes into contact with skin, flush wit
also aluminous cements	water immediately.	
이 수가 있는 것이 다른 것이 가지 않는 것이 다. 것이 나는 것이 같이 같이 했다.		
Directions for use	Fire: EDE 164 is non flamm	nable.
Dosage: The dosage range is from 0.2kg to 0.6kg/ metric		
one of material to be ground. Industrial trials are required to	Cleaning: Spillage of EDE	164 can be removed with water
determine the optimum dosage.	(refer to Safety Data Sheet).	
Procedure: Liauid admixture ready-to-use.	Overdose: Dosages in exc	cess of 3kg/ metric tone are to be
A dosing pump is required to introduce the correct dosage into	avoided.	
he mill.	Contraction of the second second	
EDE 164 may be introduced directly into the mill or onto the	a second second second second	At a second second
feed conveyor belt.	A Second Second Second	

the use of EDE 164.

Our technicians are ready to provide advice and assistance in

EDE 178 Grinding aid

Description	Physical and chemical properties
 EDE 178 is an admixture specifically formulated to improve the grinding of minerals. EDE 178 is particularly recommended for grinding cements. Increased mill production (8% to 20%) depending on the efficiency of the equipment and the characteristics of the material to be ground. Reduced grinding energy costs. Improved physical properties of the ground material. Improved performance in both closed and open circuit systems at equal specific surface area or equal sieve residues. The mechanical strengths of cements are maintained or increased at all ages. Bulk density is increased. Powder flow characteristics are improved before, during and after storage. Pack set tendencies and coating are substantially reduced. The risk of false set is reduced due to the lower grinding temperatures. Cement particle size distribution is improved resulting in more thorough hydration. Reduces plastic shrinkage (inital set). 	 Form : Liquid Active ingredients : Aqueous solution of hydroxylated amine and other components. Specific gravity at 20°C : 1.117 kg/dm3 (± 0.015). PH at 20°C : 8.2 (± 1.5). Chloride content : <0.1%. Alkali content : <1.2% Na2O equiv. Other characteristics Colour : Brown. Freezing point : < -15°C. Flash point : Non flammable product. Dry matter (solids content) : 56%. Packaging Bulk tanker loads (where appropriate). 1000 liter containers and 215 liter drums. Storage The quality is guaranteed for 12 months starting from the manufacturing date provided the product is not altered with other chemicals. Do not mix with any other product. EDE 178 will not freeze above -15°C.
Applications	Precautions
 Grinding of cements according to ENV 197-1, type I to V, and aluminous cements. Directions for use Dosage: The dosage range is from 0.2kg to 0.5kg/ metric tone of material to be ground. Industrial trials are required to determine the optimum dosage. Procedure: Liquid admixture ready-to-use. A dosing pump is required to introduce the correct dosage into the mix. EDE 178 may be introduced directly into the mill or onto the feed conveyor belt. Our technicians are ready to provide advice and assistance in the use of EDE 178. 	 Procedure: If EDE 178 comes into contact with skin, flush with water immediately. Fire: EDE 178 is non flammable. Cleaning: Spillage of EDE 178 can be removed with water. (Refer to Safety Data Sheet). Overdose: Dosages in excess of 3kg/ metric tone should be avoided.

EDE 200 Grinding Aid

•	• •
Descri	ption

EDE 200 is a kind of additive usable for all types of cement. Its main usage is for grinding aid.

EDE 200 is preferred for grinding of cements that are high Blaine.

- An amelioration in the capacity of the mill by 8%-18% (this is related with characteristics of grinding material and used equipage)
- Fall in the cost of g riding energy.
- Amelioration of the Physical quality of the grinding material,
- Performance amelioration for open or closed g riding systems.

Physical and chemical properties

: Liquid

: Brown

: 8.5 (+/-1.0)

(for 20oC)

: < - 16 oC

: Not flaring

: < % 0.1

: Hydroxide amines' dilute dip

: 1.115 kg/dm3 (+/- 0.05)

: < %1.2 Na2O equivalent

- Physical form
- Colour
- Active elements
- pH (for 20 oC) Specific gravity
- · Specific gruiny
- Freezing point
- Chlorine content
- Flaring point
- Additive element ratio
- Alkali İcontent

Packing

- Bulk
- 1000 liter plasticize tank
- 215 liter metal barrel

Stocking

It has been expended in the first 18 months after the production. EDE 200 has not to be mixed with other products

Applications

Usable for all types of cement.

Directions for use

Dosage: For 1 tone cement, 0.2 - 0.5 kg EDE 200 should be used.

Optimum dosage should be experimented after industrial trials.

Feeding: EDE 200 should be sprayed into the mill or should be distillate on cement clinker band. Dosage pumps should be used in order to apply optimum dosage to the mill.

According to EDE 200 application, our technical team is always ready for further help.

Any contact of EDE 200 with skin could be harmful, wash with water. Any contact with eyes, wash with water and consult to a doctor immediately.

Precautions

Fire: EDE 200 is not flammable.

Clean less: EDE 200 could be cleaned with water.

Overdose: Dosage should not be over 10 kg/tone.



RAW GROUP»

RAW 100 Raw mill grinding aid - high performance

Description

RAW 100 is an admixture specifically formulated to improve the grinding of raw mill in the cement industry. It is also recommended for the grinding of limestone, chalk, and other raw materials.

- Increased mill production (from 6% to 15%) depending on the efficiency of the grinding installation and the characteristics of the raw material to be ground.
- Reduced grinding energy costs.
- Improved particle size distribution.
- Increased mill production and/ or energy savings achieved at equal sieve residues (63, 90, 100 μm).
- Improved flow characteristics of raw feed before, during and after storage.
- Clinker quality may be improved.

Physical and chemical properties

: Liquid.

components.

: 4.5 (± 1.5).

: Dark brown.

: < -15°C.

: < 0.2%.

: < 0.1%.

: Aqueous solution of hydroxylated

: 1.085 kg/ dm3 (± 0.015).

: Non flammable product.

- Form
- Active ingredients
- Specific gravity at 20°C
- pH at 20°C
- Chloride content
- Alkali content

Other characteristics

- Colour
- Freezing point
- Flash point
- Dry matter (solids content)

Packaging

- Bulk tanker loads (where appropriate).
- 1000 liter containers and 215 liter drums.

Storage

The quality is guaranteed for 12 months starting from the manufacturing date provided the product is not altered with other chemicals. Do not mix with any other product. RAW 100 will not freeze above -15

Applications Precautions Health and Safety: If RAW 100 come into contact with skin, Metric Grinding of raw meal for cement manufacturing (dry or wet process). flush with water immediately. In case of contact with eyes, flush Grinding limestone, chalk etc... with water immediately and seek medical advice. Fire: RAW 100 is non flammable. **Directions for use** Dosage rates: The dosage range is from 0.3kg to 1.5kg/ Cleaning: Spillage of RAW 100 can be removed with water tone of material to be ground. The dosage will vary according to the hardness of the material (refer to Safety Data Sheet). being ground and the target fineness. Industrial trials are required to determine the optimum dosage. **Overdose:** Dosages in excess of 3kg/ metric tone should be Typical dosage rate is 0.4kg/ metric tone. avoided. Procedure: Liquid admixture ready-to-use. Our technicians are ready to provide advice and assistance in A dosing pump is required to introduce the correct dosage into the use of RAW 100. the mill. RAW 100 may be introduced either directly into the mill or onto the feed conveyor belt. The addition point of the product may prove significant.

RAW 110

Raw material grinding aid

Description	Physical and chemical properties
 RAW 110 is an admixture specifically formulated to improve the grinding of raw meal in the cement industry. It is also recommended for the grinding of limestone, chalk, and other raw materials. Increased mill production (from 6% to 15%) depending on the efficiency of the grinding installation and the characteristics of the raw material to be ground. Reduced grinding energy costs. Improved particle size distribution. Increased mill production and/ or energy savings achieved at equal sieve residues (63, 90, 100 μm). Improved flow characteristics of raw feed before, during and after storage. Clinker quality may be improved. 	 Form : Liquid. Active ingredients : Aqueous solution of hydroxylated components. Specific gravity at 20°C : 1.085 kg/ dm3 (± 0.015). PH at 20°C : 4.5 (± 1.5). Chloride content : < 0.2%. Alkali content : < 0.1%. Other characteristics Colour : Dark brown. Freezing point : < -15°C. Flash point : Non flammable product. Dry matter (solids content) : Packaging Bulk tanker loads (where appropriate). 1000 liter containers and 215 liter drums. Storage The quality is guaranteed for 12 months starting from the manufacturing date provided the product is not altered with other chemicals. Do not mix with any other product. RAW 110 will not freeze above -15°C.
Applications	Precautions
 Metric Grinding of raw meal for cement manufacturing (dry or wet process). Grinding limestone, chalk etc Directions for use Dosage rates: The dosage range is from 0.3kg to 1.5kg/ metric tone of material to be ground. The dosage will vary according to the hardness of the material being ground and the target fineness. Industrial trials are required to determine the optimum dosage. Typical dosage rate is 0.4kg/ metric tone. Procedure: Liquid admixture ready-to-use. A dosing pump is required to introduce the correct dosage into the mill. RAW 110 may be introduced either directly into the mill or onto the feed conveyor belt. The addition point of the product may prove significant. 	Our technicians are ready to provide advice and assistance in the use of RAW 110 Health and Safety: If RAW 110 comes into contact with skin, flush with water immediately. In case of contact with eyes, flush with water immediately and seek medical advice. Fire: RAW 110 is non flammable. Cleaning: Spillage of RAW 110 can be removed with water (refer to Safety Data Sheet). Overdose: Dosages in excess of 3kg/ metric tone should be avoided.







Cement Additives



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