

# CLARO-COTE

## CURES-HARDENS-DUSTPROOFS CONCRETE

CLARO-COTE is a clear, quick drying liquid used direct from the drum for application on newly poured or old concrete. When applied to newly poured concrete, CLARO-COTE seals in the gauging water hardens floor surface and protects against construction stains. An excellent coating for old concrete to prevent dusting and to rehardens surface.

(ALL SUPPORTING DATA OVERLEAF)

### HOW DOES IT WORK?

CLARO-COTE is a resin sealer based on a chemically resistant Acrylic Co-polymer giving outstanding versatility as a curing agent, hardener, sealer and dustproofers.

**AS A CURING AGENT.** CLARO-COTE acts as a concrete curing membrane retarding moisture loss in freshly poured concrete. Usually used on large exposed areas of concrete, which are difficult to treat with traditional methods of damp hessian or plastic sheeting.

**AS HARDENER.** CLARO-COTE hardens a slab with one coat more than a three-coat application of a silico-fluoride solution hardener. The resin penetrates the pores of the concrete forming a tough continuous film.

**AS A SEALER.** CLARO-COTE leaves a durable film, which protects the concrete surface against stains, oil, mortar and plastic droppings.

**POLYMER MOISTURE BARRIER PREVENTS EFFLORESCENCE.** (The penetration of moisture or chemicals to the surface of concrete).

**RESISTANT TO WIDE RANGE OF CONTAMINANTS.** (See overleaf for resistance to specific chemicals)

**LONG TERM RESISTANCE TO ALKALIES IN CONCRETE.** (Superior to Silicates, P.V.A. emulsions, Hydrocarbon resins).

**EXCELLENT RECOATING CHARACTERISTICS.** (No need to abrade previous CLARO-COTE coats when recoating, second coat has excellent adhesion to any previous worn coating).

**AS A DUSTPROOFER.** CLARO-COTE dust proofs by the outstanding penetration of porous surfaces keying the loose powdering particle in concrete, plaster and mortar.

**TWO COATS GIVE A SEMI-GLOSS FINISH ON NORMAL CONCRETE**

(Due to penetrating nature CLARO-COTE can highlight areas of varying porosity).

**THE CLEAR GLOSS FINISH IS NON-YELLOWING.**

(Can be applied over many paint finishes to give hardwearing gloss topcoat)

**PROMOTES ADHESION OF BOTH PAINT AND TILES TO FINISHED CONCRETE.**

(Unlike many dustproofers, wax curing agent's etc. which adversely affects tile adhesives etc.)

### WHY IS IT SO GOOD?

CLARO-COTE reduces maintenance by eliminating construction stains.

CLARO-COTE needs no mixing on site.

CLARO-COTE does not need acid etching of the concrete prior to application.

CLARO-COTE protects floor from mortar and plaster droppings. These can be easily removed from a CLARO-COTE protected floor by use of broom or washing with water.

CLARO-COTE dries faster than most other products. Quick drying, within 30 minutes of application, giving protection from rainfall on newly laid concrete when used as a curing agent and allowing rapid recoating when sealing.

CLARO-COTE hardens with 1 coat better than with 3 coats of Silico-fluoride system.

CLARO-COTE penetrates deeper than most other resins and surface reactive hardeners, (Normally over 1" penetration in a new slab).

## HOW IS IT USED?

**AS A CURING AGENT.** CLARO-COTE is applied as soon as possible after the concrete has been laid and finished. Best sprayed on immediately after the free water film on the surface has evaporated.

**COVERAGE: 6 SQ. METRES PER LITRE - 1 COAT ONLY.**

**AS A SEALER FOR NEW CONCRETE.** CLARO-COTE is applied by roller after removal of surface dust etc. Two coats recommended for maximum effectiveness.

**COVERAGE: 8-10 SQ. METRES PER LITRE PER COAT.**

**AS A SEALER FOR OLD CONCRETE:** CLARO-COTE is applied by roller to a clean floor. All traces of oil, grease, laitance, dirt, etc. must be removed to allow penetration. No need however, to acid etch. Two coats again recommended to give surface gloss and complete sealing. Recoatable normally within 4 hours. Damaged coatings can be readily repaired without extensive preparation - only a clean surface needed

**COVERAGE: 10 - 12 SQ. METRES PER LITRE PER COAT.**

### PHYSICAL PROPERTIES

APPEARANCE -	Clear low viscosity liquid
ODOUR-	Aromatic solvent
VISCOSITY -	17 secs. No.4 Ford cup
COLOUR-	Very pale GARDNER NO.1
SOLIDS-	16 - 18% w/w
FLASH POINT -	Solvent flash point 43 <sup>0</sup> C
S.G.-	0.85
DRYING TIME-	Tack free 30 minutes Hard dry 1.5 hours
STORAGE LIFE-	minimum 2 years in sealed can
CURING EFFICIENCY-	Meets British Ministry of Public Works Spec. 201 with minimum 75% efficiency American National Standards Spec. C309-73 with water losses below 0.055 gm/am <sup>2</sup> . Passes A.S.T.M. C-1561-71 Requiring 95% efficiency for 72 hours.

### CHEMICAL PROPERTIES

ALKALI RESISTANCE -	EXCELLENT
STRONG ACID RESISTANCE-	"
WEAK ACID RESISTANCE -	"
SOAP RESISTANCE-	"
MINERAL OIL RESISTANCE-	"
GREASE RESISTANCE -	"
WATER RESISTANCE -	"
VEGETABLE OIL RESISTANCE-	"
ANIMAL OIL RESISTANCE -	"
AROMATIC HYDROCARBON RESISTANCE-	POOR
KETONES RESISTANCE-	POOR
EFFECT BY SUNLIGHT-	NON- YELLOWING
DILUTION-	NOT- RECOMMENDED

### TESTS CONDUCTED BY LAW AND COMPANY AND/OR PITTSBURG TESTING LABORATORY CONSULTING AND ANALYTICAL CHEMISTS.

CLARO-COTE tested as an aid in bonding of floor covering materials to concrete surfaces where it significantly improves the peel strength of common P.V.C. tile adhesives.

**METHOD USED:** Two 12 x 12 x 4 " slabs were cast from the same batch of concrete. The surface of each slab was "finished off" smoothly. The surface of one slab was treated with CLARO-COTE and the other was left untreated. After the concrete was cured in the laboratory for 28 days a standard 9 x 9 " asphalt tile section was cemented to the surface of each slab in the same manner used in construction of an asphalt tile floor.

Seven days after being placed on the slabs the 2 tile sections were pulled loose. It was noted that the bond failure of the plain slab occurred mostly between the concrete and the asphalt cement, whereas the bond failure of the treated slab occurred mostly between the asphalt tile and asphalt cement. To evaluate in percentages: it appeared from the tests that the application of CLARO-COTE to the concrete, provided the concrete with the ability to hold the asphalt cement at least 50% better than did the untreated concrete.

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## **ABRASION TEST FOR RELATIVE SURFACE HARDNESS**

The purpose of this examination was to determine the hardness of identical concrete slab surfaces created by the application of 1 coat CLARO-COTE and 3 coats (according to manufacturers directions) of a leading silico-fluoride concrete hardener.

**TEST METHOD: U.S CORPS. OF ENGINEERS CRD-C52-54**

<b>CONCRETE MATERIALS:</b>	<b>Mix proportions:</b>	<b>Weight, Lbs. Per Cubic Yard</b>
Cement - Type 1, portland	Cement	423
Fine Aggregate- Natural Sand	Fine Aggregate	1321
Coarse Aggregate- Crushed Stone 57	Coarse aggregate	1920
	Water, Gallons	39.0

**TEST PROCEDURE:** An amount of concrete large enough to cast three 12" x 12" x 4" slabs was prepared using the proportions shown above. The exposed surface of each specimen was given a smooth trowel finish, after which the curing materials were applied in accordance with instructions given. After air curing for 28 days each slab was subjected to an abrasion test performed as outlined by US Corps of Engineers test CRD-C52-54 "Resistance of Concrete Surfaces tom Abrasion, Rotating-Cutting Method.

### **RESULTS OF TEST:**

<b>SLAB NO.</b>	<b>CURING MATERIAL</b>	<b>ABRASION LOSS</b>
1	One coat CLARO-COTE -400 sq. ft per gallon coverage	0.210
2	SilicoFluoride Type Concrete Hardener applied according to Manufacturer's recommendations	0.242
3	Control Sample - no surface treatment	0.274

**CONCLUSION: I COAT OF CLARO-COTE (THE SAME COAT WAS USED FOR CURING, SEALING AND DUST-PROOFING) CREATED A HARDER SLAB THAN WAS CREATED BY THE SILICO FLUORIDE HARDENER.**