



## INTEGRAL FINISHING ADMIXTURE

# EUCOSHIELD



### PRIMARY APPLICATIONS

- High evaporation rate conditions
- Concrete designs using gap-graded aggregates and or manufactured sands
- Pumped concrete
- Decorative stamped concrete
- Lightweight and heavyweight concrete
- Slip-formed concrete
- Self-Consolidating Concrete

### FEATURES AND BENEFITS

- Improves finishability
- Controls bleeding
- Reduces segregation
- Reduces rapid moisture loss from the surface of the concrete
- Reduces issues caused from over-finishing
- Reduces crusting
- Reduces plastic shrinkage cracking

**A SOLUTION FOR *PLASTIC SHRINKAGE CRACK REDUCTION AND IMPROVED FINISHABILITY BUILT INTO THE MIX!***

EUCOSHIELD is a ready to use liquid admixture designed to be used with Type II cements as an integral finishing aid that reduces rapid moisture loss from the concrete surface by binding the internal water in the pore structure. EUCOSHIELD is especially effective when concreting operations must be performed in direct sun, wind, high temperatures, or low relative humidity. EUCOSHIELD also can be used to reduce excessive bleeding and segregation of concrete or mortar. Eucoshield is compatible with most other admixtures commonly used in concrete including air entraining admixtures, polycarboxylate-based HRWR admixtures (super plasticizers), conventional water reducing admixtures, and retarders. EUCOSHIELD contains no added chlorides or chemicals known to promote the corrosion of steel.

### BENEFITS

- Retains surface moisture on concrete flatwork such as driveways, sidewalks, and slabs.
- Significantly reduces plastic shrinkage cracking.
- Significantly reduces crusting caused by loss of surface moisture.
- Excellent for both interior and exterior concrete projects.
- Compatible with curing compounds or other treatments.





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Evaporation rate is a function of relative humidity, concrete temperature, air temperature and wind velocity. Plastic shrinkage cracking is a strong possibility when the rate of evaporation exceeds 0.2 lb/ft<sup>2</sup> /hr (1.0 kg/m<sup>2</sup>/hr). The chart on the right (Fig. 2.1.5 of ACI 305, Hot Weather Concreting) is useful in determining the evaporation rate under a given set of jobsite conditions. Use EUCOSHIELD when the above limit is exceeded.

To further improve resistance to plastic shrinkage cracking, the addition of PSI FIBERSTRAND synthetic microfibers are recommended along with a curing compound meeting ASTM C309 or a curing and sealing compound meeting ASTM C309, ASTM C1315. If evaporation rates are extremely high, consider the use of EUCOSHIELD along with PSI Fiberstrand micro fibers and Eucobar surface applied evaporation retardant.

**EUCOSHIELD CONCRETE SAMPLE MIX DESIGN**

MATERIAL	lb/yd <sup>3</sup>	kg/m <sup>3</sup>
Cement	517	307
Fine Aggregate	1491	885
Coarse Aggregate	1694	1005
Water	242	144
Air	6%	6%

**ADMIXTURES**

ADMIXTURE	oz/cwt	ml/100kg
EUCON AIR MAC12	0.6	39
EUCON MR	4.0	260
EUCOSHIELD	2.0	130

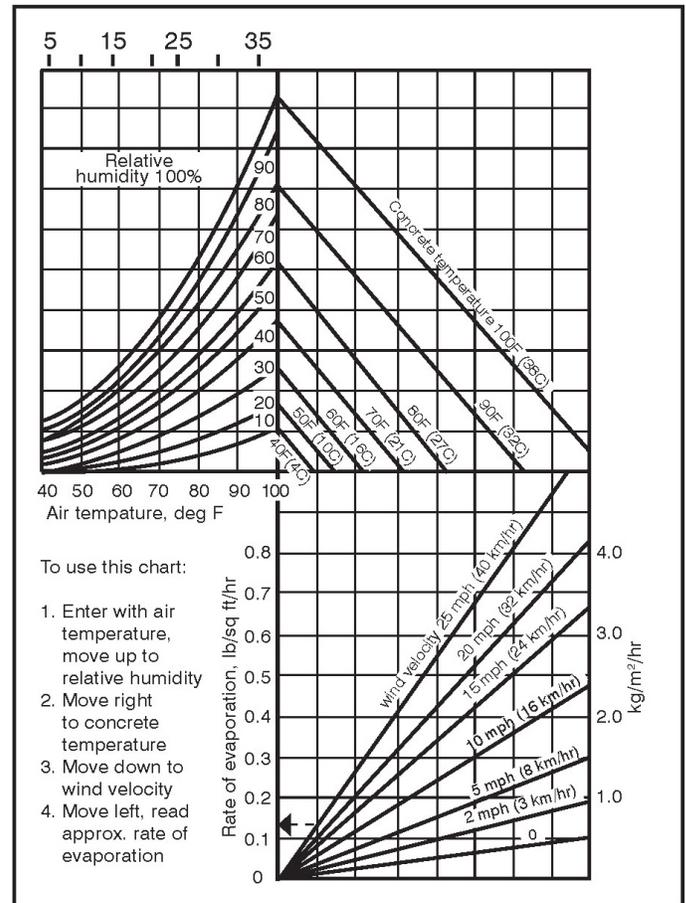


Fig. 2.1.5, ACI 305, Hot Weather Concreting

For more than 100 years, The Euclid Chemical Company has served as a leading supplier to the concrete and masonry industry, offering a full line of engineered concrete admixture and construction products marketed under the EUCLID brand name. These products include concrete admixtures, block and masonry additives, curing and sealing compounds, epoxy adhesives, floor and wall coatings, structural grouts for columns, equipment and machinery, joint fillers and repair products. The Euclid Chemical Company strives to bring innovative technologies and products to the concrete market with industry-leading customer service.