



# PRODUCT COMPARISON

Dated June 7, 2006. Data based on company technical data sheet.

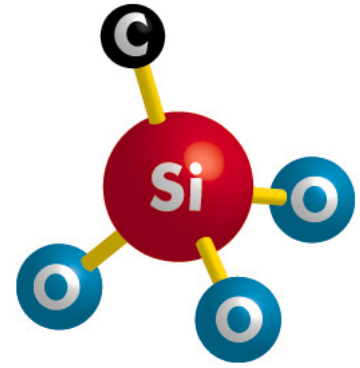
## PRODUCT PROPERTY

## ASHFORD FORMULA

## EUCLID EUCO DIAMOND HARD

HISTORY	60 YEARS	9 YEARS
IMPACT RESISTANCE	13.3 % IMPROVEMENT OVER UNTREATED CONCRETE ASTM C-805	NO TESTING FROM MANUFACTURER
COMPOSITION	CATALYZED SILICATE PRODUCES 3-DIMENSIONAL CRYSTALS AND PERMANENT HARDENING, SEALING, AND DUSTPROOFING..	SODIUM SILICATE/SILICONATE. SILICONATES CANNOT PRODUCE THREE-DIMENSIONAL CRYSTALS. CAN FORM ONLY TWO-DIMENSIONAL CRYSTALS. CONTAINS ORGANICS THAT WILL TRAFFIC OFF OR OXIDIZE.
SLIP RESISTANCE	COEFFICIENT OF FRICTION: WET: .69 DRY: .86 ASTM C-1028	NO TESTING FROM MANUFACTURER
WARRANTY	WATER REPLENT, DUSTPROOF, HARDENED, AND ABRASION RESISTANT FOR A PERIOD OF 20 YEARS	STANDARD WARRANTY: SIX MONTHS. MATERIAL FREE FROM MANUFACTURING DEFECTS.
CURING	MOISTURE LOSS: 30% LESS MOISTURE LOSS THAN UNTREATED CONCRETE AFTER 1 DAY, 27% LESS AT 3 DAYS, AND 21% LESS AFTER 7 DAYS. TESTING CONDUCTED BY TUV LABS, GERMANY, REFERENCING GUIDELINES TL-NBM-StB	NO TESTING FROM MANUFACTURER. NOT RECOMMENDED AS A CURING COMPOUND.
BONDING	ADHESION OF COATINGS 22% INCREASE IN EPOXY ADHESION TO CONCRETE TREATED WITH THE ASHFORD FORMULA. NO CHANGE IN ADHESION FOR POLYURETHANE. ASTM D 3359	NO TESTING FROM MANUFACTURER
ABRASION RESISTANCE	32.5% MORE ABRASION RESISTANT THAN UNTREATED SAMPLES ASTM C-779	NO TESTING FROM MANUFACTURER
ABSORPTION	3.1% (EQUATE TO ASTM C-642)	NO TESTING FROM MANUFACTURER
COMPRESSIVE STRENGTH	38% IMPROVEMENT IN COMPRESSIVE STRENGTH VS. UNTREATED CONCRETE. ASTM C-39	NO TESTING FROM MANUFACTURER
WEATHERING	NO EFFECT FROM ULTRAVIOLET LIGHT OR WATER SPRAY EXPOSURE ASTM G 23	NO TESTING FROM MANUFACTURER

## COMPARISON OF SILICATES AND SILICONATES



- ◆ Silicates have one silicon atom bonded to four oxygen atoms.
  - ◆ Four reactive oxygen sites allow for formation of three dimensional tetrahedral crystals when the silicate reacts with the concrete.
  - ◆ Tetrahedral crystals are the strongest and most stable molecular structures.
  - ◆ The reactivity of silicates allows for more thorough extending and re-stacking of the polymers already in the concrete.
- ◆ Siliconates have one silicon atom bonded to three oxygen atoms and one carbon atom.
  - ◆ The carbon site, being organic, is not reactive.
  - ◆ It is impossible to build three-dimensional tetrahedra in the concrete with only three oxygen sites.
  - ◆ Siliconates may be slightly more resistant to water penetration in the early months, but do not offer the same long-term durability or impermeability as the Ashford Formula.