

ENVIRO-SHIELD 40

1. **PRODUCT NAME**
FLOROK ENVIRO-SHIELD 20 & 40

RESISTS WATER UP TO 10 YEARS
RESISTANT TO ACID RAIN
LOW VOC

2. **MANUFACTURER**
THE CHARGAR CORPORATION
299 WELTON ST.
HAMDEN, CT 06517
203-562-9948 FAX: 203-562-2053

PACKAGING
1 GALLON JUGS
5 GALLON PAILS
55 GALLON DRUMS

3. **PRODUCT DESCRIPTION**
FLOROK ENVIRO-SHIELD 40 IS A PREMIUM GRADE MASONRY WATER REPELLENT BASED ON SILANE AND SILOXANE BLEND. UNDER THE INFLUENCE OF ATMOSPHERIC HUMIDITY, IT CHEMICALLY REACTS WITH AND BONDS TO MASONRY, FORMING A HIGHLY EFFECTIVE POLY-SILOXANE REPELLENT. IT IS HIGHLY ALKALINE RESISTANT AND DESIGNED FOR USE ON BRICK-CONCRETE BLOCK, PRECAST CONCRETE-STUCCO LIMESTONE, FIELDSTONE AND MANY OTHER NATURAL STONES. IT PROVIDES SUPERIOR PROTECTION AGAINST WATER PENETRATION, THEREBY PREVENTING THE DELETERIOUS EFFECT OF EFFLORESCENCE. THE DEEP PENETRATING APPLICATION RETAINS THE NATURAL APPEARANCE WITH NO SURFACE BUILDUP OR DARKENING. MASONRY REMAINS COMPLETELY BREATHABLE. ENVIRO-SHIELD IS ALSO VERY EFFECTIVE ON HORIZONTAL SURFACES SUCH AS PARKING GARAGES, SIDEWALKS, DECKS AND IT WILL REDUCE THE ATTACK FROM DE-ICING SALTS.

4. TECHNICAL DATA

ACTIVE INGREDIENTS 20% 5 YEAR
40% 10 YEAR

5. INSTALLATION

SURFACE PREPARATION: REPAIR ALL DEFECTIVE MASONRY TO A STRUCTURALLY SOUND SURFACE. CAULK ALL EXPANSION JOINTS AND CONTROL JOINTS FLASH ROOFING AS REQUIRED. WASH DIRTY MASONRY WITH 900 HD RESTORATION CLEANER.
APPLICATION: APPLY BY BRUSH OR LOW PRESSURE SPRAYER AND COMPLETELY SOAK THE SURFACE UNTIL A 6" RUNDOWN IS ACHIEVED. IF THE SURFACE IS EXTREMELY POUROUS, APPLY A SECOND COAT RIGHT AFTER THE FIRST COAT, WET ON WET. ON HORIZONTAL SURFACES APPLY ONE HEAVY COAT AND SPREAD ANY PUDDLES WITH A ROLLER OR BRUSH.

COVERAGE RATES:

COMMON BRICK: 100-150 SQ FT P/G
CONCRETE BLOCK: 100-150 SQ. FT P/G
CONCRETE DECKS: 150-200 SQ. FT P/G
NATURAL STONE: 100-250 SQ. FT P/G
STUCCO: 150-200 SQ. FT P/G

TO DETERMINE THE ACTUAL RATE OF ABSORPTION AND APPEARANCE, A TEST SAMPLE SHOULD BE MADE ON SITE BEFORE PROCEEDING.

4. **ADVANTAGES**
DEEP PENETRATION INTO SURFACES
NON-FILM FORMING
DOES NOT SOIL GLASS SURFACES
DOES NOT CONTAIN SILICONE
WAX, GUM RESINS
DOES NOT BREAK DOWN DUE TO ALKALI

TEST RESULTS

ENVIRO-SHIELD HAS BEEN TESTED AND PASSES THE FOLLOWING ASTM AND FEDERAL SPECIFICATIONS.
NCHRP# 244 SERIES IV
SEE TEST DATA REPORT FOR FULL TESTING INFORMATION.

ENVIRO-SHIELD TEST DATA

05/02/2004

THE FOLLOWING ARE TEST RESULTS ON OUR ENVIRO-SHIELD 40%

TEST DATA

ASTM E 514 WATER LEAKAGE OF MASONRY
CONCRETE BLOCK WALL

UNTREATED LEAKAGE	12.6 LITER/HOUR
TREATED LEAKAGE	0.12 LITERS/HOUR
PERCENT IMPROVEMENT	99%

BRICK WALL

UNTREATED LEAKAGE	2.2 LITERS/HOUR
TREATED LEAKAGE	0.0 LITERS/HOUR
PERCENT IMPROVEMENT	100%

NCHRP # 244 SERIES IV

REDUCTION IN CHLORIDE ION 85%

ASTM C 642 WATER ABSORPTION OF CONCRETE

24 HOURS	0.65%
48 HOURS	0.88%

ASTM C 140 CONCRETE MASONRY UNITS, ABSORPTION
24 HOUR SUBMERSION TEST, 89% EFFECTIVE IN REDUCING
WATER INTRUSION

ASTM C 67 SAMPLING AND TESTING BRICK AND STRUCTURAL
CLAY TILE, PART 7 ABSORPTION

24 HOUR IMMERSION TEST, 91% EFFECTIVE IN REDUCING MOISTURE INTRUSION

ASTM D 1653 MOISTURE VAPOR PERMEABILITY OF ORGANIC COATINGS

70 GRAMS/FT/24 HOURS 95% PERMEABILITY

ASTM C 672 DE-ICER SCALING OF CONCRETE

CONTROL AFTER 60 CYCLES 5
ENVIRO-SHIELD 40 AFTER 60 CYCLES 0+

ENVIRO-SHIELD 40 IS A CLEAR ALCOHOL SOLUTION

TOTAL SOLIDS: TEST DATA WAS PERFORMED ON THE 40% SOLUTION

ACTIVE SOLIDS CONTENT ASTM D 23269 PLUS OR MINUS 1%

AVERAGE DEPTH OF PENETRATION UP TO ½"

VOC CONTENT < 399 G/L PER LITER

FLASH POINT 110F

CONTENTS: ALKYLALKOXY SILANE

SPECIFIC GRAVITY AT 78f 0.9759

DENSITY 8.5 LBS. PER GL.