

**PRODUCT CODE: AS-8204 (A2) ARMOR-SHIELD PENETRANT**

END USE: LOW VOC PENETRATING SEALER FOR USE WITH THE ARMOR-SHIELD SERIES PRODUCTS ON STRUCTURAL STEEL, BRIDGES, DAMS, TRANSMISSION TOWERS AND TANK EXTERIORS

RESIN TYPE: CALCIUM SULFONATE ALKYD (CSA)  
SOLVENT TYPE: MINERAL SPIRITS

VISCOSITY: LESS THAN 60 KU @ 77°F (25°C)  
WEIGHT/GALLON 7.63 ± 0.5 lbs./gallon (0.916 kg/liter)

WEIGHT % SOLIDS: 65 ± 2.0  
VOLUME % SOLIDS: 59 ± 2.0

SURFACE PREPARATION: SSPC SP-1, FOLLOWED BY SSPC SP-2, SSPC SP-3, SSPC SP-6, SSPC SP-7, SSPC SP-12 OR SSPC SP-14 (OR EQUIVALENT NACE STANDARDS).

WET FILM: 2 – 4 mils (50 – 100 microns)  
DRY FILM: 1 – 2 mils ( 25 – 50 microns)

FLASH POINT: 105°F (40.5°C)  
GLOSS 60°: FLAT

V.O.C. 2.79 LBS/GAL (334 gms/liter)

CHARACTERISTICS: EXTREMELY GOOD WETTING PROPERTIES. CAN BE USED BETWEEN BACK-TO-BACK ANGLES, ROCKERS, INACCESSABLE AREAS, ETC. BENEATH THE ARMOR-SHIELD SERIES COATINGS.

**PERFORMANCE CHARACTERISTICS:**

SYSTEM TESTED: STEEL BLASTED TO SSPC-SP10, 1 COAT OF AS8204 (A2) @ 2 mils (125 microns) DFT TOPCOATED WITH 1 COAT OF AS8301KY (AS) @ 5 mils (125 microns) DFT

CYCLIC WEATHERING: ASTM D5894, 4 CYCLES OR 1500 HOURS  
RUSTING ASTM D610 – RATING 10  
BLISTERING ASTM D714 – RATING 10  
UNDERCUTTING ASTM D1654 – RATING 10

SALT FOG RESISTANCE: ASTM B117, 1500 HOURS  
RUSTING ASTM D610 – RATING 10  
BLISTERING ASTM D714 – RATING 10  
UNDERCUTTING ASTM D1654 – RATING 10

PENCIL HARDNESS: ASTM D3363 5B

FLEXIBILITY: ASTM D522 PASES 180° BEND, 1/8" (3.2 mm) MANDREL

## APPLICATION INSTRUCTIONS

THIS LOW VISCOSITY PENETRATING COATING IS INTENDED FOR USE AS A PENETRATING SEALER FOR ROCKERS, JOINTED OR BOLTED AREAS OF STEEL STRUCTURES, WHICH SUFFER FROM PACK RUST. OBVIOUS DEPOSITS OF OIL, GREASE, OR ROAD SALT SHALL BE REMOVED IN ACCORDANCE WITH SSPC-SP1 SOLVENT CLEANING. ALL LOOSE RUST, RUST SCALE, AND OLD NON-ADHERENT PAINT MUST BE REMOVED FROM THE JOINT SEAM AREAS BY SSPC-SP2 HAND TOOL CLEANING OR SSPC-SP3 POWER TOOL CLEANING. IN AREAS WITH EXTREMELY HEAVY PACK RUST A COMMERCIAL BLASTED IN ACCORDANCE WITH SSPC-SP6 MAY BE NECESSARY.

THE AIR AND SURFACE TEMPERATURE SHALL BE OVER 0°F (-17.7°C) AND THE WEATHER CONDITIONS SHALL BE SUCH THAT THE COATED AREAS SHALL NOT BE SUBJECTED TO RAIN OR WATER CONTACT FOR A 6 HOUR PERIOD AFTER APPLICATION. ALLOW AT LEAST 6 HOURS CURE TIME AT 77°F (25°C) BEFORE TOPCOATING. THE JOINT AREA MAY SEEM TACKY OR OILY AFTER A 6-HOUR CURE, BUT CAN BE TOPCOATED. AT LOWER TEMPERATURES EXTEND THE CURE TIME BEFORE TOPCOATING TO 6 - 12 HOURS. (ALWAYS CONFIRM INTERCOAT ADHESION WHEN TOPCOATING A SEALED AREA IF THERE IS ANY QUESTIONS ABOUT TEMPERATURE, MOISTURE OR CURE OF THE PENETRANT).

MIX THE COATING THOROUGHLY BY HAND TO A UNIFORM CONSISTENCY. DO NOT THIN. APPLY BY SPRAY OR BRUSH. IF THE COATING RUNS OR SAGS, SMOOTH OUT RUNS WITH A BRUSH. EXCESS COATING AND MOISTURE WILL EXIT FROM THE LOWER EDGE OF THE JOINT. BECAUSE OF THE POROUS NATURE OF THE RUST LAYER AND THE INACCESSIBILITY OF THE AREA INSIDE THE JOINT, WET FILM THICKNESS MEASUREMENTS SHOULD NOT BE TAKEN BUT RELATIVE THICKNESS DETERMINED BY APPLYING A GIVEN AMOUNT OF MATERIAL IN A DEFINED AREA.

DEPOSIT ENOUGH COATING TO THOROUGHLY WET THE JOINT SEAMS. COAT THE UPPER EDGE OF ALL SEAMS FIRST, WORKING DOWN THE SIDES OF THE JOINT FROM THE TOP TO THE BOTTOM, PROPELLING THE MATERIAL INTO THE JOINT. MOISTURE WILL BE DISPLACED FROM THE JOINT AND SHOULD BE ALLOWED TO EXIT FREELY FROM THE BOTTOM OF THE JOINT AREA.

(NOTE: JOINT GEOMETRIES VARY WIDELY AND IT IS NOT THE INTENT OF THIS SPECIFICATION TO ADDRESS THE APPLICATION OF EACH JOINT TYPE. THE APPLICATOR MUST EVALUATE INDIVIDUAL JOINT GEOMETRIES TO DETERMINE THE BEST METHOD OF APPLYING PENETRANT TO ACHIEVE OPTIMAL JOINT COVERAGE USING THE BASIC PRINCIPLES LISTED ABOVE)

EQUIPMENT: THIS COATING CAN BE SPRAYED, BRUSHED OR ROLLED. A “HUDSON TYPE SPRAYER” WITH A WAND IS THE PREFERRED METHOD OF SPRAYING THIS MATERIAL ALTHOUGH IT CAN BE SPRAYED WITH AIRLESS EQUIPMENT AT LOW PRESSURE OR BE APPLIED BY BRUSH OR ROLLERS. IF BRUSHING OR ROLLING, DO NOT OVER BRUSH OR ROLL, AS THIS WILL LIMIT FILM BUILD. BRUSH OR ROLL FROM THE TOP OF THE JOINT DOWN.

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