

SAFETY PRECAUTIONS

HARMFUL OR FATAL IF SWALLOWED — IRRITANT — COMBUSTIBLE

Contains: Petroleum Distillates

Avoid contact with eyes. Avoid prolonged or repeated contact with skin. Wear protective goggles, gloves and clothing. Avoid prolonged breathing of vapors. Use with adequate ventilation or approved respirators in confined areas. Do not take internally. Store and use away from heat, open flame or spark sources. Close container tightly after each use. Do not transfer to unlabeled or breakable containers. Use only for purposes intended. Keep out of reach of children.

EFFECTS OF OVEREXPOSURE:

Contact with eyes or prolonged or repeated contact with skin can cause irritation and inflammation. Prolonged breathing of vapors can cause respiratory difficulty, dizziness, headache, nausea, irritation of nose or throat, drowsiness, blurred vision and coma. Ingestion could be harmful; aspiration into lungs can cause serious injury or death.

FIRST AID PROCEDURES:

Eye Contact — Flush with water for 15 minutes. If pain or redness persists, seek medical attention immediately. Skin Contact — Wash with soap and water after wiping off excess material. If irritation persists, seek medical attention. Inhalation — Remove to fresh air. If breathing difficulty persists, give oxygen or resuscitate and SEEK MEDICAL ATTENTION IMMEDIATELY. Ingestion — Do NOT induce vomiting. If vomiting occurs, keep head below hips to prevent aspiration. SEEK MEDICAL ATTENTION IMMEDIATELY.

PHYSICAL EMERGENCY PROCEDURES: If ignited, extinguish with CO₂ or dry chemicals. Water or foam may cause frothing. Water may be used to keep containers cool or flush spills away from area of involvement.

Consult Material Safety Data Sheet (MSDS) for this product or call Southwestern Petroleum Corporation at (817)332-2336 for further health and safety information.

THIS PRODUCT IS NOT A HAZARDOUS MATERIAL AS DEFINED BY U.S. DEPARTMENT OF TRANSPORTATION 49 CFR PARTS 171-177

PRODUCT DATA BULLETIN II

FLEX•SHIELD PRIMER

DESCRIPTION AND PURPOSE:

SWEPCO Flex•Shield Primer is an environmentally safe, liquid roof primer manufactured from emulsified "Heart of Texas" Asphalt and other select ingredients. Formulated to prepare dry, weathered roofs for recoating, SWEPCO Flex•Shield Primer seals and primes the roof surface prior to installation of other SWEPCO Roofing Products.

WEATHERED SURFACES NEED PRIMING BEFORE RECOATING

If deterioration has not progressed too far, weathered roof surfaces can be maintained by recoating. But recoating should always be preceded with the use of an asphalt primer. SWEPCO Flex•Shield Primer is especially formulated for this function. It is designed to prepare existing smooth surface asphalt; gravel, granule or other aggregate covered asphalt; and granular surfaced asphalt roll roofing roofs for additional roofing work. It is also used as a primer for exposed metal roofs prior to coating and as a primer for cast-in-place concrete in some applications.

INSURES PROPER PERFORMANCE FROM SURFACE COATINGS

SWEPCO Flex•Shield Primer helps insure longer life and maximum performance for the final surface coating. By sealing the existing surface, SWEPCO Flex•Shield Primer makes sure that the final coating of SWEPCO

Flex•Shield Roof Coating is not absorbed by the original surface and that it provides dependable long-term protection.

IMPROVES BONDABILITY AND STRENGTH

SWEPCO Flex•Shield Primer makes roofs last longer by insuring proper bonding, the most critical area of performance in maintenance roofing. It fills hairline cracks and absorbs the surface dust which remains after conventional cleaning methods. This insures a more suitable bonding base for application of the final protective coating. Use of SWEPCO Flex•Shield Primer insures a stronger waterproofing membrane which ultimately lasts longer and requires less maintenance.

SUPERIOR INGREDIENTS AND PROCESSING INSURE SUPERIOR PERFORMANCE

Quality ingredients and meticulous processing give SWEPCO Flex•Shield Primer superior flexibility, temperature stability, bondability and durability. The most important ingredient is "Heart of Texas" Asphalt. This superior waterproofing asphalt must meet a series of narrow quality control standards and tests before it is carefully emulsified with other ingredients to produce SWEPCO Flex•Shield Primer.

PREPARES METAL ROOFS FOR MAINTENANCE, TOO

SWEPCO Flex•Shield Primer is also effective as a primer for corrugated metal roofing and other forms of exposed sheet metal roofs. On metal, it fights rust and corrosion as well as creating a more bondable surface for a final protective coating.



HELPS TAKE THE POLLUTION OUT OF ROOFING, CONSERVES PETROLEUM

With its emulsified asphalt formulation, SWEPCO Flex•Shield Primer is environmentally safe. It doesn't contain any petroleum solvents which could escape upon application to pollute the environment. Also, it requires up to 30% less petroleum to produce. This contributes to the overall economy of the product and helps assure wiser use of the world's petroleum reserves.

EASY APPLICATION REDUCES ROOF MAINTENANCE COSTS

SWEPCO Flex•Shield Primer reduces maintenance costs, because it is easy, fast and simple to apply. It is applied straight from the container. No special preparation is needed. No heating and no special equipment are required. It can be applied with brush, squeegee or airless spray equipment.

TYPICAL PHYSICAL PROPERTIES

Viscosity, Stormer, @ 77°F (22°C), KU (ASTM D-562)	95
Specific Gravity, @ 60°F (15.5°C) (ASTM D-70)	1.01
Unit Weight, lb/gal (ASTM D-70)	8.59
Unit Weight, kg/liter (ASTM D-70)	1.03
Drying Time, to Touch, hours	2 (Depending on temperature and humidity)
Drying Time, Through, hours	4 (Depending on temperature and humidity)
Freezing Point, °F (°C)	32 (0)
Flash Point	N.A.
Wet Film Thickness, 1 gal/100 ft ² , mil (Calculation)	16
Wet Film Thickness, 1 liter/m ² , mm (Calculation)	1
Dry Film Thickness, 1 gal/100 ft ² , mil (Calculation)	8.0
Dry Film Thickness, 1 liter/m ² , mm (Calculation)	0.5
Color, wet	Brown
Color, dry	Black
Odor	Pungent

TYPICAL PERFORMANCE PROPERTIES

Workability	Permits application by brush, roller or squeegee
Settlement, 5 days (ASTM D-244)	NIL
PH (ASTM D-244)	8.2
Coating and Bonding (ASTM D-244)	Good
Accelerated Weathering, hours (ASTM G-53)	4,000*
Peeling and Chipping	None
Chalking	Slight
Erosion	Slight
Water Penetration	NIL
Storage Stability	6 Months-1 Year

TYPICAL CHEMICAL PROPERTIES

Non Volatile, % wt (by evaporation) (ASTM D-244)	50
Volatile, % wt (by evaporation) (ASTM D-244)	50
Oil Distillate, % wt (ASTM D-244)	1 Maximum
Resistance to Mild Acids and Alkali	Good
Resistance to Water	Good
Resistance to Petroleum Solvents	Poor (causes softening)
Asphalt Portion Soluble in CS ₂ (ASTM D-4)	99.9
Asphalt Base Softening Point, °F (°C) (ASTM D-36)	110 (43)
Asphalt Base Penetration, @77°F (25°C), 100 grams, 5 seconds, MM/10 (ASTM D-5)	90
Asphalt Type	Non Air Blown

NOTE: This is roughly equivalent to eight years of exposure to ultra-violet radiation, heat and moisture generally encountered in field service.

IMPORTANT: SWEPCO Flex•Shield Primer is a premium quality roofing primer, designed to prepare smooth surface asphalt roofs; gravel, granule or other aggregate covered asphalt roofs; granular surfaced roll roofing; and exposed metal roofs for further roofing work. It is not designed for use on, nor should it be applied directly to coal tar pitch roofs or bare wood. Nor should it be applied directly to insulation, asphalt composition shingles, glazed tiles or any form of rigid shingles, such as wood, slate, cement, clay or asbestos cement.

PREPARATION: The roof surface should be sound and should drain water freely. Because standing water accelerates deterioration of all asphalt roofing products, every effort should be made to isolate and correct the causes of any standing water or ponding on the roof. A minimum slope of 1/4 in. per foot (2%) is recommended. When this is not possible, SWEPCO Products can still be applied and will provide temporary protection for such areas. However, it must be understood that performance of SWEPCO Products cannot be guaranteed in any area of the roof subject to standing water. No area should be exposed to continually leaking equipment. Any loose gravel must be swept or scraped off the roof. The surface must then be thoroughly cleaned free of all dust, dirt and loose debris. All blisters, cracks, split seams and other surface irregularities should be repaired with SWEPCO Flex•Shield Patching Compound and Heavy Duty Patching Fabric. Loose, deteriorated or leaking edge, wall or protrusion flashings should be repaired with SWEPCO Flex•Shield Patching Compound and Heavy Duty Patching Fabric. (For detailed information, see instruction labels for SWEPCO Flex•Shield Patching Compound and Heavy Duty Patching Fabric or the appropriate SWEPCO Roof System installation brochure.)

APPLICATION: SWEPCO Flex•Shield Primer is applied straight from the container with standard roofing brushes, squeegees or airless spray equipment at the minimum coverage rate recommended below. (For special recommendations concerning spray application for this product, contact Southwestern Petroleum Corporation.) It requires no heating or thinning, but requires mixing if it has been stored for some time and has separated. Mechanical mixing is highly recommended in

such cases. To insure proper application, the roof surface should be dampened lightly and uniformly with clean water prior to application. Do not allow puddles to form and do not dampen such a large area that the water evaporates before application takes place.

APPLICATION PRECAUTIONS: SWEPCO Flex•Shield Primer will freeze. It should not be applied in temperatures below 40°F. (4°C). Nor should it be applied in rainy weather or if rain is expected before complete curing can take place. Normally only 24 hours is required for curing, but in cool, cloudy, damp or humid conditions curing can take longer. Avoid thick build-ups or puddles of the material as this can cause shrinkage cracking.

MINIMUM COVERAGE RATES: Minimum recommended coverage rates vary from a low of 0.25 gal. per 100 sq. ft. (0.10 liter/m²) to a high of 1.50 gal. per 100 sq. ft. (0.61 liter/m²), depending on the type of surface and the roof system being installed. Consult the appropriate SWEPCO Roof System installation instructions for required minimum coverage rates.

CURING: SWEPCO Flex•Shield Primer must be dry to touch before SWEPCO Flex•Shield Roof Coating can be applied. If the primed surface will support foot traffic without tracking, it has sufficiently cured. Under normal circumstances, sufficient curing will occur within 4 hours or less.

CLEAN-UP: SWEPCO Flex•Shield Primer can be removed from tools and other areas with soap and water before it has cured and kerosene or mineral spirits after curing.

STORAGE: SWEPCO Flex•Shield Primer has a minimum shelf life of one year provided containers are kept tightly sealed and protected from high temperatures. This product will freeze and should be stored where temperatures will not drop below 35°F. (2°C).

ADDITIONAL INFORMATION: For additional information or recommendations, write: Southwestern Petroleum Corporation, P.O. Box 961005, Fort Worth, Texas 76161-0005; Southwestern Petroleum Canada Ltd., 87 West Drive, Brampton, Ontario, Canada L6T 2J6; or N. V. Southwestern Petroleum Europe S.A., P.O. Box No. 3, B-2390 Oostmalle, Belgium.