

PRODUCT DATA BULLETIN II

HEAVY DUTY ROOF COATING

DESCRIPTION AND PURPOSE:

Heavy Duty Roof Coating is a black, liquid asphalt roof coating manufactured from specially refined "Heart of Texas" Asphalt, High Strength Micro Fibers, Dia-Seal, Finely Milled Blue-Black Slate and two special chemical additives, Zonamine and ZHD-7. Applied straight from its container, Heavy Duty Roof Coating adds an extra layer of premium quality waterproofing asphalt to old roof surfaces and waterproofs new roof surfaces. It protects both from deterioration which would otherwise shorten their lives.

OUTSTANDING FEATURES:

PROTECTS BETTER BECAUSE IT'S MADE FROM SUPERIOR INGREDIENTS

Heavy Duty Roof Coating is made from superior raw materials which protect the roof better and last longer than those of inferior coatings. These raw materials are chosen for their ability to withstand the natural weathering cycle.

ADDS WATERPROOFING POWER

Heavy Duty Roof Coating adds a layer of premium quality waterproofing asphalt, creating a durable weather surface to protect the roof's primary waterproofing membrane. "Heart of Texas" Asphalt, which is especially refined for maximum flexibility, bondability and durability, provides this extra waterproofing protection.

HELPS PROTECT AGAINST DETERIORATION

Solar radiation, moisture, heat and freezing weather work to rapidly deteriorate any roof. Heavy Duty Roof Coating provides a strong durable roof surface that is able to withstand even the most rigorous climatic conditions.

PROLONGS LIFE OF BOTH OLD AND NEW ROOFS

Heavy Duty Roof Coating is designed to protect both old and new roofs . . . smooth surface asphalt roofs; gravel, granule and other aggregate covered asphalt roofs; and exposed metal roofs. It protects new roofs by sealing in essential waterproofing oils and preserving their resiliency for years. And its vital waterproofing oils and special additives penetrate old surfaces to help revitalize and seal the weathered roof. Timely periodic application of Heavy Duty Roof Coating combined with other sensible maintenance can make a roof last the life of the building and save the great expense of roof replacement.

FINEST INGREDIENTS MAKE THE COATING LAST LONGER

Heavy Duty Roof Coating's outstanding performance is the direct result of quality ingredients and meticulous processing. SWEPCO's own "Heart of Texas" Asphalt is the most important ingredient, a premium quality waterproofing asphalt especially selected and refined to retain more of the natural plasticizing oils needed for proper protection of the surface. This superior asphalt is then fortified with two highly effective SWEPCO chemical additives, ZHD-7, a special oxidation inhibitor which slows down the natural aging process,



and Zonamine, which helps insure the formation of a tight, strong, durable and uniform bond even under adverse conditions. Together, these quality ingredients and others used in the formulation insure the creation of a coating with superior performance characteristics and longer service life.

provide the cured coating with unexcelled resistance to sag and flow regardless of the temperature or slope. These superior mineral stabilizers and reinforcers also bring other qualities to Heavy Duty Roof Coating . . . added strength, superior resistance to deterioration from solar radiation and resistance to chemical corrosion and acid rain.

BUILT-IN THERMAL STABILITY ELIMINATES ONE OF THE MAJOR REASONS FOR GRAVEL

SAFER AND EASIER TO APPLY

Heavy Duty Roof Coating also contains three quality mineral stabilizers . . . High Strength Micro Fibers, DiaSeal and Finely Milled Blue-Black Slate. These stabilizers give Heavy Duty Roof Coating outstanding thermal stability and eliminate one of the major reasons for gravel. They

Heavy Duty Roof Coating is easily applied from its container without mixing, heating or thinning. Due to the ease of application a much smaller crew and less time are required for application.

GENERAL DATA:

TYPICAL PHYSICAL PROPERTIES

Viscosity, Stormer, @77°F (25°C), 1100 grams, seconds (ASTM D-562)	65
Specific Gravity, @60°F (15.5°C) (ASTM D-70)	1.00
Unit Weight, lb/gal, 60°F (15.5°C) (ASTM D-70)	8.3
Unit Weight, kg/liter, 60°F (15.5°C) (ASTM D-70)	1.00
Drying Time, to Touch, hours	1
Drying Time, Through, hours	24
Flash Point, PM, °F (°C) (ASTM D-93)	105 (40.5)
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)	9.6
Dry Film Thickness, 1 liter/m ² , mm (Calculation)	0.6
Color	Black
Odor	Petroleum

TYPICAL PERFORMANCE PROPERTIES

Workability (ASTM D-4479, 6.2)	Permits application by brush, squeegee, roller or spray
Behavior, @140°F (60°C) (ASTM D-4479, 6.3)	No blistering, sagging or slide greater than .25" (6mm)
Pliability, @32°F (0°C) (ASTM D-4479, 6.4)	No cracking or separation
Adhesion to Dry Surfaces (ASTM D-3409)	Excellent
Adhesion to Wet Surfaces (ASTM D-3409)	Excellent
Accelerated Weathering, hours (ASTM G-53)	4,000*
Film Appearance	Good
Peeling and Chipping	None
Erosion	Slight
Water Penetration	NIL
Chalking	None
Storage Stability	Indefinite

TYPICAL CHEMICAL PROPERTIES

Non Volatile, % wt (ASTM D-4479, 8.2)	67
Volatile, % wt (ASTM D-4479, 8.2)	33
Asphalt Portion Soluble in CS ₂ , % wt (ASTM D-4)	99.9
Water Content (ASTM D-95)	NIL
Resistance to Mild Acids and Alkali	Good

Resistance to Water	Excellent
Resistance to Petroleum Solvents	Poor
Asphalt Resins, % wt (ASTM D-4)	58
Petroleum, Solvents, % wt (ASTM D-4479, 8.2)	32
Mineral Stabilizers and Additives, % wt (ASTM D-4479, 8.3)	10

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

APPLICABLE SPECIFICATIONS & APPROVALS

- ASTM Designation D-4479, Type 1
- U.S. Federal Specification SS-A-00694D
- Canadian Government Specification Board Standard 37-GP-8M and Canadian National Department of Defense
- Underwriters Laboratory Listing (U.L.)
- CSTB - Belgium
- Kuwait Ministry of Public Works Product Approval
- South Africa Bureau of Standards Product Approval per SABS92
- Valton Teknillinen Tutkimuskesku Rakennustekniikan (State of Technical Research/Helsinki — Approval on Product Weather Resistance)

APPLICATION INFORMATION:

IMPORTANT: Heavy Duty Roof Coating is a black, semi-mastic asphalt roof coating, designed to waterproof, protect and preserve both new and properly prepared old smooth surface asphalt roofs; gravel, granule or other aggregate covered asphalt roofs and exposed metal roofs. It is not designed for use on nor should it be applied directly to coal tar pitch roofs, wood surfaces, slate, glazed tile or any other brittle surface. Nor should it be applied directly to insulation, bare concrete decks, uncoated organic felts, granular surfaced roll roofing, corrugated asbestos cement or asphalt composition shingles.

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. Loose gravel, granules or other aggregate 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 Heavy Duty Patching Compound and Heavy Duty Patching Fabric. A dry, brittle looking asphalt surface or hairline cracks which are less than .06 in. (1.52 mm) deep indicate the need for treatment with

Heavy Duty Primer before coating. In addition, seams and joints in metal roofs should be sealed with Heavy Duty Patching Compound and Heavy Duty Patching Fabric. Screws, bolts or other fasteners must be securely fastened and caulked with Heavy Duty Patching Compound. Any protrusions through the roof should be flashed with Heavy Duty Patching Compound and Heavy Duty Patching Fabric. (For detailed information, see instruction labels for Heavy Duty Patching Compound, Heavy Duty Patching Fabric and Heavy Duty Primer.)

APPLICATION: Heavy Duty Roof Coating is applied straight from the container with standard roofing brushes, squeegees or airless spray equipment at the minimum coverage rates recommended below. It requires no heating, thinning or mixing. In cold weather, it can be brought to application consistency by storing the container in a warm roof for 72 hours prior to usage. (For specific recommendations concerning spray application, contact Southwestern Petroleum Corporation).

APPLICATION PRECAUTIONS: Do not apply to wet or damp roof surfaces. Avoid thick build-ups or puddles of the coating as this can cause shrinkage cracking.

MINIMUM COVERAGE RATES:

Smooth Surface Asphalt/Asphalt Roll Roofing — 2.5 gals. per 100 sq. ft. (1.02 liters/m²)

Gravel & Other Coarse Aggregate Covered Asphalt — 5.0 gals. per 100 sq. ft. (2.04 liters/m²)

Granule & Other Fine Aggregate Covered Asphalt — 4.0 gals. per 100 sq. ft. (1.63 liters/m²)

APPLICATION INFORMATION

(Continued)

Exposed Metal or Uni+Shield Single-Ply Roofing — 2.0 gals. per 100 sq. ft. (0.82 liters/m²)

With Heavy Duty PolyMaster Over Smooth Asphalt — 2 Coats, each at 3 gals. per 100 sq. ft. (1.22 liters/m²)

With Heavy Duty PolyForm Over Asphalt & Gravel (2 Coats) — 1st Coat 6 gals. per 100 sq. ft. (2.45 liters/m²) — 2nd Coat at 3 gals. per 100 sq. ft. (1.22 liters/m²)

NOTE: These coverage rates are minimum coverage rates. Do not under apply the product as this can adversely affect product performance and will negate any guarantee to which the product may be subject.

CURING: The rate at which Heavy Duty Roof Coating cures depends greatly upon temperature and humidity. However, it will usually support light foot traffic within 24 hours. Do not apply additional reflective or protective coatings over this coating until it has been allowed to completely cure for 60 to 90 days.

CLEAN-UP: Heavy Duty Roof Coating can be removed from tools and other areas with kerosene or mineral spirits.

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

SAFETY PRECAUTIONS

HARMFUL OR FATAL IF SWALLOWED - IRRITANT - COMBUSTIBLE

Contains: Naptha & Other 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, fatigue, pneumonitis, pulmonary edema or central nervous system depression. Ingestion can cause symptoms similar to inhalation; aspiration into lungs can cause serious injury or death.

FIRST AID PROCEDURES:

Eye contact - Flush with water for 25 minutes. If pain or redness persists seek medical attention immediately. Skin Contact - Wash with soap and water 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.

