

# PRODUCT DATA BULLETIN ||

## ALUMINUM ROOF COATING

### **DESCRIPTION AND PURPOSE:**

SWEPCO Aluminum Roof Coating is a semi-mastic asphalt, aluminum roof coating manufactured from two specially refined asphalts, "Heart of Texas" Asphalt and TRI-MASTIC 49 Asphalt, high quality aluminum pigments, and two highly effective chemical additives, Zonamine and ZHD-7. It is designed to produce an energy efficient aluminum surface that waterproofs, protects and preserves both old and new roof surfaces. It is used with a variety of other SWEPCO Roofing Products to provide complete roof protection. Consult the appropriate application literature for more information.

### **OUTSTANDING FEATURES:**

#### **PROVIDES AN ENERGY- EFFICIENT REFLECTIVE SURFACE**

SWEPCO Aluminum Roof Coating contains millions of pure aluminum pigments that "leaf", or rise, to the surface forming an overlapping continuous shield of aluminum. Its pure aluminum surface is up to eight times more reflective than typical black roof surfaces and up to four times more reflective than typical graveled roofs. SWEPCO Aluminum Roof Coating's ability to reflect infra-red solar radiation reduces interior temperatures of buildings which are not air conditioned and reduces the cooling loads of air conditioned buildings. Also, this aluminum shield dissipates heat more slowly than typical roof surfaces, minimizing a building's heat loss in cold weather. SWEPCO Aluminum Roof Coating is an

energy efficient roof coating that can reduce energy consumption in both hot and cold weather.

#### **PURE ALUMINUM SHIELD PROLONGS ROOF LIFE**

SWEPCO Aluminum Roof Coating protects the waterproofing asphalt in the coating and the asphalt in the existing roof by blocking out a large percentage of the sun's deteriorating ultra-violet radiation. This layer of non-corrosive aluminum also protects the roof from corrosion caused by smoke, acids, chemicals and other industrial pollutants. SWEPCO Aluminum Roof Coating provides a shield of protection that can significantly extend the life of both old and new roofs.

#### **ADDS A LAYER OF PREMIUM QUALITY WATERPROOFING ASPHALT**

SWEPCO Aluminum Roof Coating also adds a new layer of premium quality waterproofing asphalt which provides dependable protection against moisture. This waterproofing asphalt also helps revitalize older roofs, restoring some of the strength and flexibility the weathered roof has lost.

#### **LAST LONGER DUE TO SUPERIOR INGREDIENTS**

Two specially refined asphalts, "Heart of Texas" and TRI-MASTIC 49 Asphalt, are blended in the formulation of SWEPCO Aluminum Roof Coating. "Heart of Texas" Asphalt gives the coating improved flexibility, bondability and weatherability. TRI-MASTIC 49, a harder asphalt, enhances the "leafing" action of the aluminum pigments by causing them to rise more quickly and uniformly,



forming a more stable, more brilliant surface.

High quality inorganic fibers give SWEPCO Aluminum Roof Coating added strength and durability and increases its thermal stability. Once cured, the coating will not run or sag even on vertical surfaces.

Zonamine, a special SWEPCO chemical additive, enables SWEPCO Aluminum Roof Coating to bond solidly and uniformly to most surfaces, giving the coating exceptional resistance to cracking, blistering and peeling. ZHD-7, another special chemical additive, is an oxidation inhibitor which keeps the coating resilient and pliable long after other coatings have become dry and brittle.

### **PRODUCES A SMOOTH, EASILY MAINTAINABLE ROOF**

SWEPCO Aluminum Roof Coating's superior durability and reflectivity eliminate the need for gravel. By eliminating troublesome gravel, which can often cause drainage problems or hinder roof inspection, SWEPCO Aluminum Roof Coating produces a smooth, modern, lightweight roof surface that is quicker, easier and more economical to maintain.

### **SAFE AND EASIER TO APPLY**

SWEPCO Aluminum Roof Coating is safer and easier to apply than many other roof coatings. It's applied straight from its container; no heating or thinning is required. Due to the ease of application, a smaller size crew and less time are required for application of SWEPCO Aluminum Roof Coating.

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## **GENERAL DATA:**

### **TYPICAL PHYSICAL PROPERTIES**

Viscosity, Stormer, @77°F (25°C), KU, ASTM D-562 .....	112
Specific Gravity, @ 60°F (15.5°C), ASTM D-70 .....	1.16
Unit Weight, lb/gal, ASTM D-70 .....	9.69
Unit Weight, kg/liter, ASTM D-70 .....	1.16
Drying Time, to Touch, hours .....	1-2
Drying Time, Through, hours .....	24
Flash Point, T.O.C., °F (°C), min, ASTM D-3143 .....	105 (40.5)
Wet Film Thickness, 1 gal/100 ft <sup>2</sup> , mil, Calculation .....	16
Wet Film Thickness, 1 liter/m <sup>2</sup> , mm, Calculation .....	1
Dry Film Thickness, 1 gal/100 ft <sup>2</sup> , mil, Calculation .....	9
Dry Film Thickness, 1 liter/m <sup>2</sup> , mm, Calculation .....	0.60
Color .....	Silver
Odor .....	Petroleum Naptha

### **TYPICAL PERFORMANCE PROPERTIES**

Workability, ASTM D-2822, 6.2 .....	Permits application by brush, roller or spray
Behavior, @140°F (60°C), ASTM D-2822, 6.3 .....	No blistering, sagging or slide grater than 1/4 in. (6 mm)
Pliability, @32°F (0°C), ASTM D-2822, 6.4 .....	No cracking or separation
Adhesion to Dry Surfaces, ASTM D-3409 .....	Excellent
Reflectance .....	55%
Accelerated Weathering, hours, ASTM G-53 .....	1,000
Film Appearance .....	Some Discoloration
Peeling and Chipping .....	None
Erosion .....	Slight
Water Penetration .....	None
Chalking .....	None

Accelerated Weathering, hours, ASTM G-53 .....	3,000*
Film Appearance .....	Some Discoloration
Peeling and Chipping .....	None
Erosion .....	Slight
Water Penetration .....	NIL
Chalking .....	Slight
Storage Stability .....	1 Year

**TYPICAL CHEMICAL PROPERTIES**

Non Volatiles, % wt, ASTM D-2824, 8.2 .....	65
Volatile, %wt, ASTM D-2824, 8.2 .....	35
Asphalt Portion Soluble in CS <sub>2</sub> , % wt, ASTM D-4 .....	99.9
Water Content, % wt, ASTM D-95 .....	Nil
Metallic Aluminum, % wt, ASTM D-2824, 8.4 .....	18.4
Resistance to Mild Acid or Alkali .....	Causes some discoloration
Resistance to Water, ASTM D-4 .....	Good
Resistance to Petroleum Solvents .....	Poor, causes softening and discoloration
Asphalt and Solvents, % wt .....	60
Fibers, Pigments, Stabilizers and Additives, % wt, ASTM D-4 .....	40

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

**APPLICABLE SPECIFICATIONS**

Coating: ASTM D-2824, Type III  
 Pigment: ASTM D-962, Type 2, Class A U.S. Federal Specification, TT-P-320c, Type II, Class 2

**APPLICATION INFORMATION:**

**IMPORTANT:** SWEPCO Aluminum Roof Coating is a liquid asphalt aluminum roof coating, designed to waterproof, protect and preserve both new and properly prepared old smooth surface asphalt roofs; gravel, granule and other aggregate covered asphalt roofs; granular surfaced roll roofing roofs; and exposed metal roofs. It can also be used over asphalt shingles for protection and reflectivity only. It is not designed for direct application to coal tar pitch roofs, wood surfaces, slate, glazed tile or any other brittle surface, insulation, bare concrete decks or corrugated 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. Any 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 Patching Fabric. Loose, deteriorated or leaking edge, wall or protrusion flashings should be repaired with Heavy Duty Patching Compound and Patching Fabric. In addition, seams and joints in metal roofs should be sealed with Heavy Duty Patching Compound and 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 Patching Fabric. (For detailed information, see instruction labels for Heavy Duty Patching Compound and Patching Fabric or the appropriate system installation brochure.) A dry, brittle looking asphalt surface or hairline cracks which are less than 0.06 in. (1.52 mm) deep indicate the need for treatment with Heavy Duty Primer before coating. When used over asphalt shingles, shingles must be strong and sound. Loose shingles must be secured. Damaged shingles must be replaced. Loose granules must be swept off the roof.

**APPLICATION:** SWEPCO Aluminum Roof Coating is applied straight from the container with standard roofing brushes or airless spray equipment at the minimum coverage rates recommended below. It requires no heating or thinning. For a more brilliant finish, it should be applied with all strokes in one direction and with as few strokes of the application tool as possible. When

## APPLICATION INFORMATION

(Continued)

applied over asphalt shingles, brush strokes should be in the downhill direction only to prevent material from getting under the shingles. Results are also improved when application takes place on a sunny day above 70°F. (20°C) with low relative humidity. Do not exceed recommended coverage rates, as this can retard the brilliance of the cured coating. The materials should be stirred thoroughly prior to application and agitated periodically during application. (For specific information 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 tends to retard brilliance and can lead to shrinkage cracking. Applications should be avoided in rainy, foggy, damp or heavily overcast weather with relative humidities of 80% or higher. Application in cold temperatures of 60°F. (15°C) or lower should also be avoided if possible. Application should be avoided if rain or any of the above mentioned weather conditions is expected within 24 hours after application. All of these conditions tend to dull the brilliance of the coating. Do not apply over Heavy Duty Primer or other asphaltic coatings until they have been allowed to cure completely. Consult Heavy Duty Primer application instructions for curing times. Premature use over such coatings can cause discoloration.

### MINIMUM COVERAGE RATES:

Over Smooth Surface Asphalt/Asphalt Roll Roofing/Mineral Granule Covered Asphalt/Asphalt Shingles -- 1.5 gal. per 100 sq. ft. (0.61 liter/m<sup>2</sup>); Over Uni+Shield® II/ Uni+Shield®/Exposed Metal -- 1.0 gal. per 100 sq. ft. (0.41 liter/m<sup>2</sup>); Over Gravel or Other Coarse Aggregate Covered Asphalt -- 3.0 gal. per 100 sq. ft. (1.22 liter/m<sup>2</sup>).

NOTE: These coverage rates are our 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:** Curing depends greatly upon temperature and humidity. However, it will usually support light foot traffic after 24 hours.

**CLEAN-UP:** SWEPCO Aluminum Roof Coating can be removed with kerosene or mineral spirits.

**STORAGE:** Minimum shelf life of one year if kept tightly sealed and protected from high temperatures.

**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 Naphtha & 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 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 CO<sub>2</sub> 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.

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