

PRODUCT DATA BULLETIN II

UNI+SHIELD TRI-POLYMER MODIFIED BITUMEN ROOFING MEMBRANE

DESCRIPTION AND PURPOSE:

SWEPCO Uni+Shield Tri-Polymer Modified Bitumen Roof Membrane is a highly versatile prefabricated modified bitumen waterproofing membrane. It is suitable for recovering many existing roof surfaces and for new roof construction. It is installed using a special heat welding technique, which heats the asphalt on the underside of the roll to a liquid state, allowing it to "fuse" to the surface below. Because of its outstanding thickness, strength, durability and seam integrity, it can be used in modern single-ply systems as well as conventional multi-ply applications.

SWEPCO Uni+Shield Tri-Polymer Modified Bitumen Roof Membrane is formulated with a select asphalt, modified with three premium quality synthetic polymers, mineral stabilizers, oxidation inhibitors and reinforced with a tough, spun bonded polyester core.

OUTSTANDING FEATURES:

A THICKER, TOUGHER MEMBRANE

SWEPCO Uni+Shield Tri-Polymer Modified Bitumen Roof Membrane provides unexcelled durability and strength. Not one, but *three* different, carefully selected and processed polymer asphalt modifiers and the super strong polyester core create a membrane with exceptional strength and flexibility.

ZHD-7 MEANS IT WILL LAST LONGER

SWEPCO's exclusive oxidation inhibitor, ZHD-7, slows oxida-

tion which causes premature hardening and deterioration of other waterproofing materials. This means SWEPCO Uni+Shield will stay pliable and waterproof long after other materials have dried out and cracked.

SUPERIOR SEAM STRENGTH

Seam reliability has been a big concern among other types of single ply materials, like plastics and rubber materials. SWEPCO Uni+Shield's highly effective heat welding technique insures super strong, reliable seams. SWEPCO's "heat fused" seaming technique insures seams that are stronger than the membrane itself. You never have to worry about failure of expensive chemical adhesives, sealants or tapes.

APPLICATION VERSATILITY

Exceptional strength and durability mean SWEPCO Uni+Shield is suitable for a broad range of approved applications. As a maintenance item, it can solve maintenance problems other maintenance materials cannot solve. So it can save property owners the expense of roof tear offs. As a new roofing material, it provides the most modern roofing available.

SMOOTH, MAINTAINABLE SURFACE REDUCES ROOFING EXPENSE

The modern, smooth surface provided by Uni+Shield is easier and less costly to maintain. It eliminates the headaches and extra costs associated with gravel surfaced roofing. With Uni+Shield inspection takes minutes instead of hours, and, if maintenance does become necessary, it costs less too because it takes less time.



GENERAL DATA:

TYPICAL PHYSICAL PROPERTIES

Weight, lb/100 ft ² (kg/m ²)	80 (4)
Weight, lb/roll (kg)	88 (40)
Thickness, mils (mm)	157 (4)
Composition of Modified Bitumen	
Bitumen, %	70
Polymers, %	30
Oxidation Inhibitor	ZHD-7
Breaking Strength, md, lbf (N) (CSGB 37-GP-56M/ASTM D-412 Mod)	220 (980)
Breaking Strength, xd, lbf (N) (CSGB 37-GP-56M/ASTM D-412 Mod)	165 (736)
Elongation, %	50
Water resistance, absorption, grams (ASTM D-618)	0
Water resistance, dimensional change (ASTM D-570)	Nil
Low Temperature Flexibility, 1 in. (2.54 cm) mandrel, @14°F (-10°C)	Pass
Water vapor transmission, g	0.1
Hardness, Shore A	45
Dynamic impact (puncturing) 3.6 ft (110cm) (4.9J) (ASTM D-2240)	Pass
Dimensional Stability, 5, max, 16 hrs @176°F (°C) unrestrained (UEATC No. 127:1983)	0.5

LAP JOINT STRENGTH

5 days conditioning, md, lbf (N) (CSGB 37-GP-56M/ASTM D-412 Mod)	215 (960)
Immersion, @122°F (50°C), 5 days, md, lbf (N)	215 (960)
Immersion, @122°F (50°C), 5 days plus 5 freeze thaw cycles, md, lbf (N)	215 (960)
Accelerated weathering, 3000 hours, Q. U. V. (ASTM G-23)	
Cracking, blistering	None
Breaking strength, retention of original	90%
Elongation, retention of original	90%
Freeze/Thaw, 50 cycles (ASTM D-6673)	Pass

UNI+SHIELD MEETS THE FOLLOWING REQUIREMENTS

Factory Mutual - U.S.A.
UL Listing - U.S.A.
BDA (Buro Dakadvies) - HOLLAND
EMPA - SWITZERLAND
Agreement Board - UNITED KINGDOM
CGSB 37-GP-56M - CANADA

Note: These values are typical of our current production. Deviation within acceptable industry standards should be expected. Southwestern Petroleum Corporation reserves the right to alter these specifications without advance notice.

APPLICATION INFORMATION:

Please consult the appropriate system application guide for complete application information, approved specifications and installation instructions. Do not under any circumstances attempt use of this product without first reading this application guide in its entirety.

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., Industrieweg 6, B-2390 Oostmalle, Belgium.



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