

# TECHNICAL DATA SHEET Bakor® Solar-Flex®

White Elastomeric Roof Coating

Physical Property	Typical Value	Test Method
Appearance	Bright white liquid	-
Application Temperature (ambient)	10° C (50° F) and rising	-
Elongation, Initial	>200%	ASTM D2370
Solids Content by Weight	>49%	ASTM D1644
Solar Reflectance, Initial / 3 year	0.86 / 0.72	ASTM C1549
Solar Reflectance Value (SRI), Initial / 3 year	108 / 87	ASTM E1980
Solids Content by Volume	>38%	ASTM D2697
Tensile Strength	>150 psi	ASTM D2370
Thermal Emittance, Initial / 3 year	0.88 / 0.82	ASTM C1371
Viscosity (Brookfield)	15,000-20,000 cPs, 6D/20 rpm	ASTM D2196
VOC Content (maximum)	50 g/l	-
Water Absorption	<20%	ASTM D471
Water Vapor Permeance (maximum)	20 perms	ASTM D96
Weight	1.2-1.3 kg/l (10.5-11.5 lbs./gal.)	-

## Description

**Bakor** Solar-Flex White Elastomeric Roof Coating is a premium, elastomeric, water-based acrylic latex coating and is used as a system approach to the maintenance of weathered roof surfaces such as metal roofing, mineral surfaced roll roofing, weathered smooth surface roll roofing, weather asphalt built-up roofing and modified bitumen.

## **Features**

- Water-based
- Reflects over 85% of the sun's heat and UV rays; prolongs roof life
- Lowers roof and interior temperatures
- Mildew and stain resistant
- Excellent adhesion to metal surfaces

#### Usage

- Recoating roofs previously coated with asphalt emulsion, acrylic or aluminium coatings
- Aged asphalt roofs, including Built-Up roofing (BUR) and Modified Bitumen (MB)
- Metal Roofs

Not recommended over shingles of any kind.

### **Application**

**CLEAN**: Before coating the roof, use a pressure washer or high pressure nozzle and water hose to wash the roof with a non-filming detergent, such as TSP or TSP substitute. Use appropriate pressure and take caution not to inject water into the roof substrate. In areas with stubborn dirt, grease, or other contaminants, use a stiff bristle brush or broom to scrub the areas clean with additional water and non-filming detergent. Treat algae or moss. The most effective method of cleaning algae and moss from a roof is with a 50:50 mix of laundry strength liquid chlorine bleach and water. Apply with a sprayer and allow the solution to dwell on the roof surface for 15 to 20 minutes, and then rinse thoroughly with low pressure water. Extended dwell times may be necessary, however, avoid letting the solution dry completely as this may prevent complete rinsing. Take proper precautions to protect landscaping and surrounding areas from the chlorine bleach solution. Use appropriate personal protective equipment when working with chlorine bleach. In severe cases, it may take more than one bleach treatment to kill all of the moss. Give the roof a final rinse to ensure it is free of all detergent or anything else that could affect adhesion. Allow roof to dry completely before application. Using a leaf blower or broom, clear any remaining dust, dirt, debris, and foreign material that may prevent proper adhesion.

**Metal Roofs**: It is important to remove all loose, flaking, poorly adhered material and rust by wire brushing, brooming and use of a high pressure water jet. In areas where rust has been removed, apply **Bakor**<sup>®</sup> **Solar-Flex**<sup>®</sup> diluted 25% by volume with clean water at the rate of 0.25 L/m² (0.5 gal/100 ft²) and let dry as the primer coat.

PREP: Carefully inspect area to be coated, including around pipes, chimneys, equipment, roof edges and walls. Repair all cracks, breaks, splits, seams and holes in roofing membrane or metal roof by embedding <code>Bakor®</code> <code>990-06</code> <code>Yellow</code> <code>Jacket</code> between 2 heavy coats of <code>Bakor®</code> <code>Solar-Flex®</code> applied over and at least 50 mm (2") beyond crack, seam or repair. <code>Bakor®</code> <code>990-06</code> <code>Yellow</code> <code>Jacket</code> should be brushed into place with a soft bristle brush to eliminate wrinkles, air pockets or blisters to obtain full contact. All vertical and horizontal roof seams and flashings must be reinforced with <code>Bakor®</code> <code>990-06</code> <code>Yellow</code> <code>Jacket</code> between 2 heavy coats of <code>Bakor®</code> <code>Solar-Flex®</code> applied over and at least 50 mm (2") beyond break in plane. All fasteners must be tightly secured or replaced and encapsulated with a high quality urethane sealant.

**APPLY:** Choose a warm, sunny day when roof is warm to the touch. **Bakor**<sup>®</sup> **Solar-Flex**<sup>®</sup> can be applied to a dry or slightly damp, but not wet surface. Stir **Bakor**<sup>®</sup> **Solar-Flex**<sup>®</sup> to a uniform consistency. Apply with a deep-pile roller, 4 knot roofing brush or heavyduty spray. When applied by brush or roller, keep strokes in one direction. Apply second coat at right angles to first coat. Allow 24 hours for all repairs and crack treatment to cure before coating with **Bakor**<sup>®</sup> **Solar-Flex**<sup>®</sup>. Apply only to roofs with positive drainage and which do not pond water.

**2-Coat System (5 Year Warranty)**: For newer roofs in "good to excellent" condition. Stir contents until uniform in colour and consistency. Apply 2 coats of **Bakor**® **Solar-Flex**® at the rate 0.5 to 0.65 L/m² (1.0 to 1.25 gal/100 ft²) per coat. Each coat to be applied at right angles to each other by roller, brush or spray application. The first coat of **Bakor**® **Solar-Flex**® must dry before second application is applied.

**3-Coat System (8 Year Warranty)**: For older roofs and/or roofs in "fair to good" condition. Stir contents until uniform in colour and consistency. Apply 3 coats of **Bakor**<sup>®</sup> **Solar-Flex**<sup>®</sup> at the rate of 0.5 to 0.65 l/m² (1.0 to 1.25 gal./100ft²) per coat. Each coat to be applied at right angles to each other by roller, brush or spray. Each coat of **Bakor**<sup>®</sup> **Solar-Flex**<sup>®</sup> must dry before application of the next coat. Always use the 3-Coat System for previously uncoated metal roofs or smooth surface (not granule surfaced) SBS and APP membranes.

**For spray equipment**: Use an airless spray system with a minimum working pressure of 3000 psi. During application, keep tools clean and free from coating build-up by rinsing frequently with water.

DO NOT THIN. DO NOT APPLY IF RAIN OR TEMPERATURES BELOW 10° C (50° F) ARE EXPECTED WITHIN 12 HOURS (low temperature and/or high humidity may require longer drying time). DO NOT ALLOW COATING IN PAIL TO FREEZE. Do not heat container or store at temperatures >49° C (>120° F). When transporting, make sure the pail is secured and the lid is tight to prevent spills. This coating is not intended for application over plywood, walking decks, uncoated SPF roofs, rubber or PVC sheet roofs, silicone coated roofs, shingles of any kind, roofs previously covered with loose or embedded gravel ballast. Wear eye protection when applying in the sun.

# Coverage

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### Clean-up

Before coating dries, clean tools, spillage, etc., with warm soapy water. If coating is dry use mineral spirits.

#### **Product Size**

3.78 L. 18.93 L

**Revision Date: 06/14/2018** 

## **Limited Product Warranty**

We, the manufacturer, warrant only that this product is free of defects, since many factors which affect the results obtained from this product - such as weather, workmanship, equipment utilized and prior condition of the substrate - are all beyond our control. We will replace at no charge any product proved to have a material defect within 5-years of purchase (for the 2-Coat System), and 8-years of purchase (for the 3-Coat System), pro-rated after 3 years, provided it has been applied in accordance with our written directions for uses we recommend as suitable for this product. Proof of purchase must be provided.

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