## RamTough 250



Hot Fluid Applied Rubberized Asphalt Roofing & Waterproofing Membrane

**Description** - A thermoplastic material, RamTough 250 Bitumen is a 100% solid polymer modified rubberized bitumen which forms a completely monolithic, waterproof barrier without seams or joints. Made with 7% recycled tire crumb rubber by weight pre mixed, greater than 25% post consumer, 25% post industrial.

**Uses -** Ram Tough 250 is designed to be installed in new and restoration applications such as plaza deck waterproofing systems, protected membrane roofs (IRMA®)\*, Green Roof Roofscapes®, Vertical waterproofing applications, parking decks, bridges, water treatment plants and between slab waterproofing membrane systems. Ram Tough 250 is formulated for use in dead level applications with positive drainage.

**Finished Application:** 

215 mils (1.35 lbs/sq ft)

Second Coat:

125 mils (0.785 lbs/sq ft)

## Heating Equipment & Guidelines

A double-jacketed, hot-air or oil bath melter with mechanical agitation, specifically designed for rubberized asphalt materials is required. Maintain oil-bath at approximately 500°F and material temperature at 375°F to 400°F, with constant agitation.

Do not overheat RamTough 250. Overheating will cause RamTough 250 to cross-link and line the walls of the melter, adversely affecting the equipment and the material performance properties.

It is also important not to hold RamTough 250 material at elevated temperatures for prolonged periods of time as this will also cause some polymer degradation. A target of not exceeding four hours at 400°F under heat should be adhered to.

## Limitations

RamTough 250 should not be left exposed or subjected to unprotected construction traffic. Do not install this product over lightweight structural concrete of less than 3000 PSI (6.89 kN/m<sup>2</sup>) without prior written acceptance from Barrett. Lightweight insulating concrete and insulation boards are not acceptable substrates.



**Eioste@agte** 

90 mils (0.565 lbs/sq ft)

## **Properties**

Description	Test Method	Test Requirement	Test Results	Comments
Color	NA	NONE	NA	Black
Softening Point	ASTM D2398	80°C (176°F)	83°C (181°F)	Pass
Solids Content	CGSB-37.50-M89	100%	100%	Pass
Ratio of Toughness				
to Peak Load	CGSB-37.50-M89	Min. 0.040	0.059	Pass
Low Temperature				
Crack Bridging Capacity	CGSB-37.50-M89	No cracking	No cracking	Pass
		No Adhesion Loss	No Adhesion Loss	
		No Splitting	No Splitting	
Toughness, J	CGSB-37.50-M89	Min. 5.5	11.7	Pass
Penetration 0.1 mm	CGSB-37.50-M89	Max 110 @ 25°C (77°F)	80 @ 25°C	Pass
		Max 200 @ 50°C (122°F)	155 @ 50°C	
Flow, mm	CGSB-37.50-M89	Max 3 @ 60°C (140°F)	0.50 @ 60°C	Pass
Flash Point	CGSB-37.50-M89 ASTM-D-92	Min. 260°C (500°F)	327°C (620°F)	Pass

Adhesion	CGSB-37.50-M89	Min. 1	1.2	Pass
Viscosity	CGSB-37.50-M89	Min. 2, Max 15	4 Sec.	Pass
Water Vapor Permeability	CGSB-37.50-M89	Max 1.7 0.35 g max gain	0.18 ng/Pa. m²s	Pass
Water Absorption	CGSB-37.50-M89	Max 0.18 0.18 g max loss	0.22 g gain	Pass
Low Temperature Flexibility & Adhesion	CGSB-37.50-M89	No cracking No delamination No adhesion loss	No cracking No delamination No adhesion loss	Pass
Heat Stability	CGSB-37.50-M89	Aged samples No change in viscosity, penetration flow or low temp	Aged samples No change in viscosity, penetration flow or low temp	Pass

LIMITED WARRANTY: Barrett warrants its Products to be free of defects in materials, but makes no warranty as to appearance or color. Since methods of application and on-site conditions are beyond our control and can affect performance, Barrett makes no other warranty, expressed or implied, including warranties of MERCHANTABILITY and FITNESS FOR A PARTICULAR PURPOSE, with respect to The Barrett Compnay, LLC. Barrett to replace or to refund the purchase price of the quantity of Barrett proven to be defective, and Barrett shall not be liable for any loss or damage.

