# RamTough 250

Hot Rubberized Asphalt Waterproof 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.

## 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.

## Coverage

1st Coat = 90 mils (0.627 lbs/sq ft) 2nd Coat = 125 mils (0.872 lbs/sq ft) Total = 215 mils (1.5 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.



## **Properties**

Description	Test Method	Test Requirement	Test Results	Comments
Color	NA	NONE	NA	Black
Softening Point	ASTM-D-36		83°C (181°)	Pass
Solids Content	CGSB-37-GP-50	100%	100%	Pass
Ratio of Toughness				
to Peak Load	CGSB-37-GP-50	Min. 0.040	0.059	Pass
Low Temperature				
Crack Bridging Capacity	CGSB-37-GP-50	No cracking	No cracking	Pass
		No Adhesion Loss	No Adhesion Loss	
		No Splitting	No Splitting	
Toughness, J	CGSB-37-GP-50	Min. 5.5	11.7	Pass
Penetration 0.1 mm	CGSB-37-GP-50	Max 110 @ 25°C (77°F)	80 @ 25°C	Pass
		Max 200 @ 50°C (122°F)	155 @ 50°C	
Flow, mm	CGSB-37-GP-50	Max 3 @ 60°C (140°F)	0.50 @ 60°C	Pass
Flash Point	CGSB-37-GP-50	Min. 260°C (500°F)	327°C (620°F)	Pass
	ASTM-D-92			
Water Resistance	CGSB-37-GP-50	No delamination	No delamination	Pass
50°C (122°F) for 4 days	ASTM-D-92	No blistering	No blistering	
		No emulsification	No emulsification	
		No deterioration	No deterioration	
		No pinholes	No pinholes	_
Adhesion	CGSB-37-GP-50	Min. 1	1.2	Pass
Viscosity	CGSB-37-GP-50	Min. 2, Max 15	4 Sec.	Pass
Water Vapor Permeability	CGSB-37-GP-50	Max 1.7	0.18 ng/Pa. m²s	Pass
		0.35 g max gain		_
Water Absorption	CGSB-37-GP-50	Max 0.18	0.22 g gain	Pass
		0.18 g max loss		-
Low Temperature	CGSB-37-GP-50	No cracking	No cracking	Pass
Flexibility & Adhesion		No delamination	No delamination	
		No adhesion loss	No adhesion loss	_
Heat Stability	CGSB-37-GP-50	Aged samples	Agea samples	Pass
		NO CHANGE IN VISCOSITY,	NO CHANGE IN VISCOSITY,	
		penetration flow or low temp	penetration flow or low temp	

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.

