

# 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.

### Coverage

**First Coat:** 90 mils (0.63 lbs/sq ft) + **Second Coat:** 125 mils (0.875 lbs/sq ft)

**Finished Application:**  
215 mis (1.5 lbs/sq ft)



### Approvals

Underwriters Laboratories  
New York City (MEA)  
Miami Dade  
FM Approved



### Packaging

30 lbs./carton  
75 cartons per pallet  
2,250 lbs./pallet

### 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 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<br>No Adhesion Loss<br>No Splitting  | No cracking<br>No Adhesion Loss<br>No Splitting  | Pass     |
| 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)<br>Max 200 @ 50°C (122°F)  | 80 @ 25°C<br>155 @ 50°C  | Pass     |
| Flow, mm                                    | CGSB-37.50-M89              | Max 3 @ 60°C (140°F)   | 0.50 @ 60°C  | Pass     |
| Flash Point                                 | CGSB-37.50-M89<br>ASTM-D-92 | Min. 260°C (500°F)   | 327°C (620°F)  | Pass     |
| Water Resistance<br>50°C (122°F) for 4 days | CGSB-37.50-M89<br>ASTM-D-92 | No delamination<br>No blistering<br>No emulsification<br>No deterioration<br>No pinholes | No delamination<br>No blistering<br>No emulsification<br>No deterioration<br>No pinholes | 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<br>0.35 g max gain   | 0.18 ng/Pa. m <sup>2</sup> s   | Pass     |
| Water Absorption                            | CGSB-37.50-M89              | Max 0.18<br>0.18 g max loss  | 0.22 g gain  | Pass     |
| Low Temperature Flexibility & Adhesion      | CGSB-37.50-M89              | No cracking<br>No delamination<br>No adhesion loss                                       | No cracking<br>No delamination<br>No adhesion loss                                       | Pass     |
| Heat Stability                              | CGSB-37.50-M89              | Aged samples<br>No change in viscosity,<br>penetration flow or low temp                  | Aged samples<br>No change in viscosity,<br>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 Company, 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.

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