



**# Polymer Modified Bitumen:**



RTI Polymer Modified Bitumen is designed to maximum resistance to permanent deformation and reduce fatigue of asphalt mixtures that are used in the most demanding locations.

The careful selection of additives greatly enhances binder performance, improving elasticity, reducing temperature susceptibility and improving adhesion. Pavements based on RTI Modified Bitumen have been shown to have a longer life with a better resistance to:

- Rutting
- Cracking
- Stripping
- Ageing
- Thermal Cracking

The careful selection of additives greatly enhance binder performance, improving elasticity, reducing temperature susceptibility and improving adhesion. Our product range is particularly suited to heavy traffic locations such as highways, main roads, airfields, roundabouts and bus lanes. Typically we've developed products for a combination of the following needs:

- Superior Elastic Modulus of RTI PMB helps control deformation under high pavements Temperature and heavy loading conditions.
- Increases the fatigue life of pavement under repeated heavy loading conditions.
- Helps in reduction of maintenance cost and is more cost and is more cost effective on a life cycle cost basis.
- For use in thin surfacing and stone mastics asphalt (SMA) mixes;
- For use in drainage (porous) asphalt applications;
- For asphalt mixtures designed for high resistance to permanent deformation and high flexibility.

**RTI PMB**

RTI PMB is a highly specialized blend of Bitumen with high quality polymer (Elastomeric) and is manufactured under carefully controlled conditions in a "State of Art" plant. RTI PMB is an exceptionally versatile product with enhanced properties that makes it suited for wearing course application under special conditions like high rainfall and high traffic. RTI PMB is strictly manufactured as per IRC: SP: 53: 2002 and IS 15462:2019.

- RTI PMB 40 : Recommended for Hot climatic areas
- RTI PMB 70 : Recommended for moderate climatic areas
- RTI PMB 120 : Recommended for cold climatic areas

**TYPICAL PROPERTIES:**

| No | PROPERTIES  | RTI PMB 40 | RTI PMB 70 | RTI PMB 120 |
|----|---|------------|------------|-------------|
| 1  | Penetration at 25 °C, 0.1 mm Max                                | 30-50      | 50-90      | 90-150      |
| 2  | Softening Point, °C min   | 60         | 55         | 50          |
| 3  | Elastic Recovery of half thread in Ductilometer at 15 °C, % min | 75         | 75         | 75          |
| 4  | Flash Point, °C, min  | 220        | 220        | 220         |
| 5  | Separation Difference in Softening Point, °C max                | 3          | 3          | 3           |



|   |  |     |     |     |
|---|--|-----|-----|-----|
| 6 | Tests on Residue   |     |     |     |
|   | - Penetration of residue at 25 °C<br>% min   | 35  | 35  | 35  |
|   | - Increase in softening point, °C max  | 5   | 6   | 7   |
|   | - Elastic Recovery of half thread in<br>Ductilometer at 25 °C of residue,<br>% min | 50  | 50  | 50  |
| 7 | Ductility at 27 °C, cm   | +50 | +60 | +75 |
| 8 | Viscosity at 150 °C, poise   | 3-9 | 2-6 | 1-3 |

**ADVANTAGES:**

- Lower susceptibility to daily and seasonal temperature various
- Prevents Rutting
- High resistance to deformation at elevated pavement temperature
- High skid resistance
- Better adhesion between aggregates and binder ensures longer life, strength and stability
- Better water resistance
- Better edge resistance properties

**Application:**

RTI PMB is ideal product for wearing courses on

- Heavy trafficked lane
- Slopes, roundabouts, junctions
- Industrial and multimodal, junctions
- Airport Runways
- Parking places
- Bridges and flyovers
- High rainfall regions

**To Ensure Best Results:**

Recommended temperature for application

| No | Process                | Temperature Range |
|----|------------------------|-------------------|
| 1  | Mixing with Aggregates | 170 - 185 °C      |
| 2  | Laying                 | 150 - 170 °C      |
| 3  | Compaction             | Over 140 °C       |
| 4  | End of Compaction      | 110 - 120 °C      |

**Availability:**

RTI PMB is available in  
Bulk