



## POLYMER MODIFIED BITUMEN

### Styrelf® PMB 40 HYMA

A technology of TotalEnergies

#### APPLICATIONS:

Styrelf® PMB 40 (Hyma) is modified with elastomeric SBS polymers using a TotalEnergies innovative cross-linking technology. It is manufactured in state of the art facility with high shear process. It gives uniform mixing & dispersion of polymer for superior adhesion between aggregate & binder ensuring, longer life, flexural strength, reduced oxidation & overall stability of the pavement.

#### PRODUCT CERTIFICATIONS:

Bureau of Indian Standards (BIS): CM/L-No-3269160

#### SPECIFICATIONS:

STYRELf® PMB 40 (HYMA) meets the specifications as per AASHTO M332: 2014

#### BENEFITS:

- Highly modified binders can give dramatic improvement in pavement resistance to rutting and fatigue damage.
- In severe distress situations, highly modified binders are likely to double pavement life.
- Ideal for extreme temperatures & loading areas such as airport runway applications, critical areas, flyovers, junctions and roundabouts.
- Higher resistance at low temperatures (<-28°C) and higher temperatures surface (80°C) against thermal cracking & rutting because of extreme viscoelastic nature.
- Helps reduce crust thicknesses up to 20 %, ideal for perpetual pavements

#### PACKING:

STYRELf® PMB 40 HYMA is available in Bulk.

#### FOR TECHNICAL QUERIES, PLEASE CONTACT:

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## SPECIFICATIONS IN ACCORDANCE WITH AASHTO M332: 2014

Property	Test Method	Specification
Grade	AASHTO M 332:2014	PG76E-28
Viscosity@135°C, Max, Pa.s	ASTM D4402	3
Separation Test: Absolute difference between G* @ 76°C and 10 rad/s of Top and Bottom Specimens, Max %	ASTM D7173	10
Solubility, Min, %	ASTM D2042	99
Flash Point, Min °C	ASTM D92	230
Softening Point (R & B) °C Min	IS 1205	90
Elastic Recovery of Half Thread in ductilometer at 15°C %, Min	IRC SP 53:2010	90
Rolling Thin Film Oven (RTFO) Residue		
Mass Change, Max, %	ASTM D2872	1
MSCR Jnr3.2 @ 76°C, Max, kPa-1	ASTM D7405	0.1
MSCR, Recovery R3.2@ 76°C, Min, %	ASTM D7405	90
Pressurized Aging Vessel (PAV) Residue		
PAV Aging Temperature °C	ASTM D6521	100
Dynamic Shear, G*Xsin delta @ 25°C and 10rad/s, Max, kPa	ASTMD7175	5000
Bending Beam, S @ -18°C and 60°C, Max, Mpa	ASTM D6648	300
Bending Beam, m-value @ -18°C and 60°C, Min , Mpa	ASTM D6648	0.3

Procedure	Recommended Temperature Range
Mixing / Coating with Aggregates	170 - 185 °C
Laying of Mix	150-170 °C
Beginning of Compaction	Over 140 °C
End of Compaction	110-120 °C