

# BITUMEN 85-100 Penetration Grade Asphalt Cement

## General Description

It is a kind of bitumen which is produced during the process of oxidation of vacuum bottom (the bitumen production feedstock that derives from distillation tower residue in vacuum oil refineries) at bitumen production units in a manner that its penetration point (kind of test to indicate the hardness of bitumen) becomes between 85-100. Bitumen 85-100 has high flash point and high adhesion properties to aggregates, compatible with all types of aggregates.

## Typical Applications

- Construction and maintenance of flexible pavements
- Road surfacing and some industrial applications
- Road and airport constructions

## Application Temperature

APPLICATION	RECOMMENDED TEMPERATURE	UNIT
Storage temperature	120-150	°C
Mixing temperature	135-150	°C
Compacting temperature	120-140	°C

## Product Specification

ANALYSIS	VALUE*	UNIT	TEST METHOD
Density, 25 °C	1000-1050	kg/m <sup>3</sup>	ASTM D70 or D3289
Penetration, 25 °C	85-100	mm/10	ASTM D5
Softening point	45-52	°C	ASTM D36
Ductility, 25 °C	100 (Min)	cm	ASTM D113
Loss on heating	0.5 (Max)	wt %	ASTM D6
Drop in penetration after heating	20 (Max)	%	ASTM D5
Flash point (Cleveland open cup)	232 (Min)	°C	ASTM D92
Solubility in trichloroethylene	99.0 (Min)	wt %	ASTM D2042
Spot test	Negative	---	AASHOT102**
Viscosity, 60°C	1000±200	P	ASTM D 2171
Viscosity, 135°C	250 (Min)	cSt	ASTM D 2170
<b>Performance after RTFOT method test to ASTM D-1754***</b>			
Retained penetration after TFOT	50 (Min)	%	ASTM D5
Ductility, 25 °C, 5 cm/min, cm after TFOT	75	cm	ASTM D113
Viscosity, 60 °C	5000 (Max)	P	ASTM D 2171

\* Typical values; not to be considered as product specification

\*\* American association of state highway officials

\*\*\* Residue from thin film oven test

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NOTICE: All tests were performed under laboratory conditions and standard testing methods. The data are intended as a general guide only and do not necessarily represent results that might be obtained elsewhere. The use of this product must be guided by the user's own methods for selection of proper formulation. RAYOMAND disclaims any responsibility for misuse or misapplication of this product. RAYOMAND makes no warranty of merchantability and there is no warranty that goods supplied shall be fit for any particular purpose. RAYOMAND liability and customer's exclusive remedy for any claims arising out of sales of its products are expressly limited. The customer is responsible for determining whether products and information in this document are appropriate for the customer's use.