

# Polymer Modified Bitumen Technical Data Sheet



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Modified binders have the ability to offer improved performance over conventional binders. Benefits that may be derived from binder modification and typical conditions where such binders should be considered, and can be used with great gains include:

- Areas where improved stiffness and cohesion, is needed
- Areas where improved flexibility, resilience and toughness, is needed
- In areas of high stress such as heavy traffic, steep inclines, intersections, roundabouts and sharp curves
- In asphalt bases which are subjected to high loading under slow moving traffic
- In areas experiencing large daily/seasonal temperature fluctuations or high ambient temperatures for long periods
- In areas that are subjected to fuel spillages

The polymer dosages and mix designs of the binder are selected, to ensure optimum performance to the climatic and traffic conditions that, prevail on a particular project. Extensive research has shown that, the use of performance asphalts using polymer modified bitumen binders significantly increases stability, strength, anti-rutting properties and longer life-span, as demanded by the industry to meet today's and tomorrow's traffic conditions.

## TECHNICAL DATA

Properties	Test Method	Unit	Class 1	Class 2	
Penetration at 25°C	EN 1426	0.1mm	25-55	45-80	
Softening point	EN 1427	°C	≥ 75	≥ 70	
Flash point	EN ISO 2592	°C	≥ 235	≥ 220	
Cohesion	Force ductility (50 mm/min traction)	EN 13589 followed by EN 13703	≥ 2 at 5°C	≥ 1 at 5 °C	
	Tensile test (100mm/min)	EN 13587 followed by EN 13703	≥ 2 at 5°C	≥ 1 at 5 °C	
Resistance to hardening	Retained penetration	EN 12607-1	≥ 40	≥ 45	
	Increase in softening point	EN 12607-1	EN 13399 EN 1427	≤ 10	≤ 12
	Change of mass	EN 12607-1	%	≤ 0,5	≤ 0,8
Fraass breaking point	EN 12593	°C	≤ -5	≤ -7	
Elastic recovery	25°C	EN 13398	%	≥ 70	≥ 60
Plasticity range	EN 1427 & EN 12593	°C	≥ 80	≥ 75	
Drop in softening point after EN 12607-1	EN 1427	°C	≤ 5	...	
Elastic recovery at 25°C after EN 12607-1	EN 13398	%	≥ 60	≥ 50	
Storage stability	EN 13399	°C	≤ 5	≤ 5	
Difference in softening point	EN 1427	°C	≤ 5	≤ 5	
Storage stability	EN 13399	0.1mm	≤ 13	≤ 19	
Difference in penetration	EN 1426	0.1mm	≤ 13	≤ 19	

◀ corrosion **protection** that **stays**.