

High-Viscosity Modified Bitumen PMB 45/80-75 AV



Special binders



The high-viscosity **PMB 45/80 75 AV** modified Bitumen is especially designed for **mixes that are resistant to crack propagation**.

This bitumen is obtained through a chemical reticulation process with high polymer content, presenting a microscopically homogeneous structure completely stable in storage. The properties achieved significantly exceed those of traditional modified bitumens.

The technological innovation provided by high-viscosity modified bitumen allows us to advance in the processes of manufacturing anti-crack mixes and other special mixes.

Thanks to the high quality and technical value of PMB 45/80-75 AV, we can minimise maintenance and increase the life of the road surface, which equates to a reduction in costs.

/ APPLICATIONS

The main PMB 45/80-75 AV applications are:

- Mixes for high-end wearing courses resistant to the propagation of surface cracks. This binder allows the manufacturing of mixes with open/discontinuous granulometrics with 6-7.5 % of bitumen and strong fatigue resistance.
- Anti-crack mixes in interlayer systems.

/ PRODUCT CHARACTERISTICS

The following table shows the characteristics of the PMB 45/80-75 AV bitumen

CHARACTERISTICS		UNE EN	UNIT	PMB 45/80-75 AV
Tests on original bitumen				
Penetration at 25°C		1426	0,1 mm	45-80
Softening point		1427	°C	≥ 75
Cohesion. Strength-ductility		13589 13703	J/cm ²	≥ 3 a 5°C
Fraëss breaking point		12593	°C	≤ -15
Elastic recovery at 25°C		13398	%	≥ 80
Stability in storage	Difference in softening point	13399 1427	°C	≤ 5
	Difference in penetration point	13399 1426	0,1 mm	≤ 13
Flash point in open cup		ISO 2592	°C	≥ 235
Durability-Resistance to ageing EN 12607-1				
Change of mass		12607-1	%	≤ 1,0
Retained penetration		1426	%	≥ 60
Increase in softening point		1427	°C	≤ 10
Decrease in softening point		1427	°C	≤ 5

/ RECOMMENDATIONS FOR USE

RECOMMENDED TEMPERATURE RANGES FOR ITS APPLICATION	MIXING	170 - 180°C
	SPREADING AND COMPACTING	165 - 175°C

Indicative data, not contractual and not subject to specifications. Temperatures depend on the specific viscosity curves of each product.

/ PRODUCT BEHAVIOUR IN THE MIX

The most interesting field of application for these binders are the hot mixes with high resistance to reflection cracking. Bitumen gives the mix reinforced elastomeric recovery characteristics, as well as a very good resistance to plastic deformation at high temperatures and excellent flexible behaviour at low temperatures.

The higher viscosity present in the modified PMB 45/80-75 AV bitumen and the high void content of the mixture enable a higher application of the binder without exudations, which gives the desired behaviour and properties to the mixture.

