Anti-fuel Bitumen

Special binders

Anti-fuel bitumen BAC 35/50 is a specially designed binder for the manufacture of mixes to be applied in areas where fuel and lubricants are frequently spilled. Generally associated with fuelling/unfuelling areas in industrial zones, airports, service stations and car parks.

Spilled hydrocarbons can cause a loss of cohesion in the asphalt mix and its subsequent deterioration. Asphalt road surfaces manufactured with conventional bitumens are not very resistant to the dissolution of the asphalt bitumen by hydrocarbons and therefore, to the disintegration of the agglomerate with the passage of vehicles.

/ APPLICATIONS AND RECOMMENDATIONS FOR USE

Its primary application areas are those in frequent contact with hydrocarbons: taxiing strips, airport zones, bus lanes, car parks, long-term parking for fleets, motorway tolls and service stations and garages.

The most appropriate mixes for BAC 35/50 are AC D type (more closed/dense mixes). **It is highly recommendable to adjust the formula so the void content of the mix is close to 3%.**

Temperatures for use are similar to those of a conventional bitumen.

RECOMMENDED TEMPERATURE RANGES FOR ITS APPLICATION	MIXING	155 - 160ºC
	SPREADING AND COMPACTING	145 - 150ºC

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

/ PRODUCT CHARACTERISTICS

Due to anti-fuel bitumen having a solubility in organic solvents of around 97 %, this low solubility must be kept in mind by quality control, in order to determine the content of the soluble binder obtained in the extraction test carried out on the mix.

The following table shows the characteristics of BMG 35/50 Anti-fuel Bitumen:

CHARACTERISTICS		UNE EN	UNIT	BAC 35/50
Tests on original bitumen				
Penetration at 25 ºC		1426	0,1 mm	35-50
Softening point		1427	ºC	≥ 75
Fraass breaking point		12593	ºC	≤ -14
Elastic recovery at 25 ºC		13398	%	≥ 15
Stability in storage	Difference in softening point	13399 1427	ºC	≤ 5
	Difference in penetration point	13399 1426	0,1 mm	≤ 5
Durability-Resistance to ageing EN 12607-1				
Change of mass		12607-1	%	≤ 0,5
Retained penetration		1426	%	≥ 65
Variation in softening point		1427	ºC	≤ 5

/ PRODUCT BEHAVIOUR IN THE MIX

Compared with conventional binders (bitumen and modified bitumen) used for road asphalt mixtures, the anti-fuel bitumen BAC 35/50 developed by Repsol offers the following advantages:

- Greater resistance to hydrocarbons than conventional binders.
- Less susceptibility to temperature and ageing.
- Very resistant to high service temperatures.
- Easy to use and install (like a conventional bitumen)

Mixes designed with anti-fuel bitumen BAC 35/50 show good results in the fuel resistance test (UNE EN 12697-43) compared to the mixes designed with conventional bitumens.