# Repsol EFI-PAVE

Based on a careful selection in the crude basket, Repsol makes different grades of hard bitumen available to its customers for paving, as described in standard EN 13924-1, which allows mixtures with a modulus of rigidity two times higher than that corresponding to a mixture made with conventional bitumen.

## APPLICATIONS

- Base coats on new pavement.
- Airport pavements.
- Pavement reinforcement or partial reconstruction.
- In an intermediate anti wheel track layer when a thinner layer is used for the surface course.

## PRODUCT CHARACTERISTICS

The following table shows the characteristics of Repsol EFI-PAVE hard bitumen for paving:

| CHARACTERISTICS | | EN STANDARD | UNIT | Repsol EFI-PAVE 15/25 HM | Repsol EFI-PAVE 10/20 HM |
|---|---|---|---|---|---|
| Penetration at 25ºC | | 1426 | 0,1 mm | 15-25 | 10-20 |
| Softening point | | 1427 | ºC | 60-76 | 61-71 |
| Ageing resistance EN 12607-1 | Mass change | 12607-1 | % | ≤ 0,5 | ≤ 0,5 |
| | Retained penetration | 1426 | % | ≥ 55 | ≥ 55 |
| | Increased softening point | 1427 | ºC | ≤ 8 | ≤ 10 |
| Penetration index | | 12591 Annex A | - | From -1,5 a +0,7 | From -1,5 a +0,7 |
| Fraass breaking point | | 12593 | ºC | TBR | TBR |
| Flash point | | ISO 2592 | ºC | ≥ 245 | ≥ 245 |
| Solubility | | 12592 | % | ≥ 99,0 | ≥ 99,0 |

To Be Reported (TBR).

## RECOMMENDATIONS FOR USE

| | | |
|---|---|---|
| Recommended temperature ranges for application | Mixing | 175 - 180ºC |
| | **Laying and compaction** | **165 - 170ºC** |

These data are illustrative and not binding, nor subject to specification. The temperatures will depend on the specific viscosity curves of each product.

## BEHAVIOUR OF THE PRODUCT IN THE MIXTURE

### Structural capacity

The high modulus obtained with this bitumen offers us the following advantages when designing pavement structures with a bituminous base:

- Reach higher structural performance and expected life values much higher than normal (see Figure 1).
- Design thinner pavement packages for the same structural capacity.

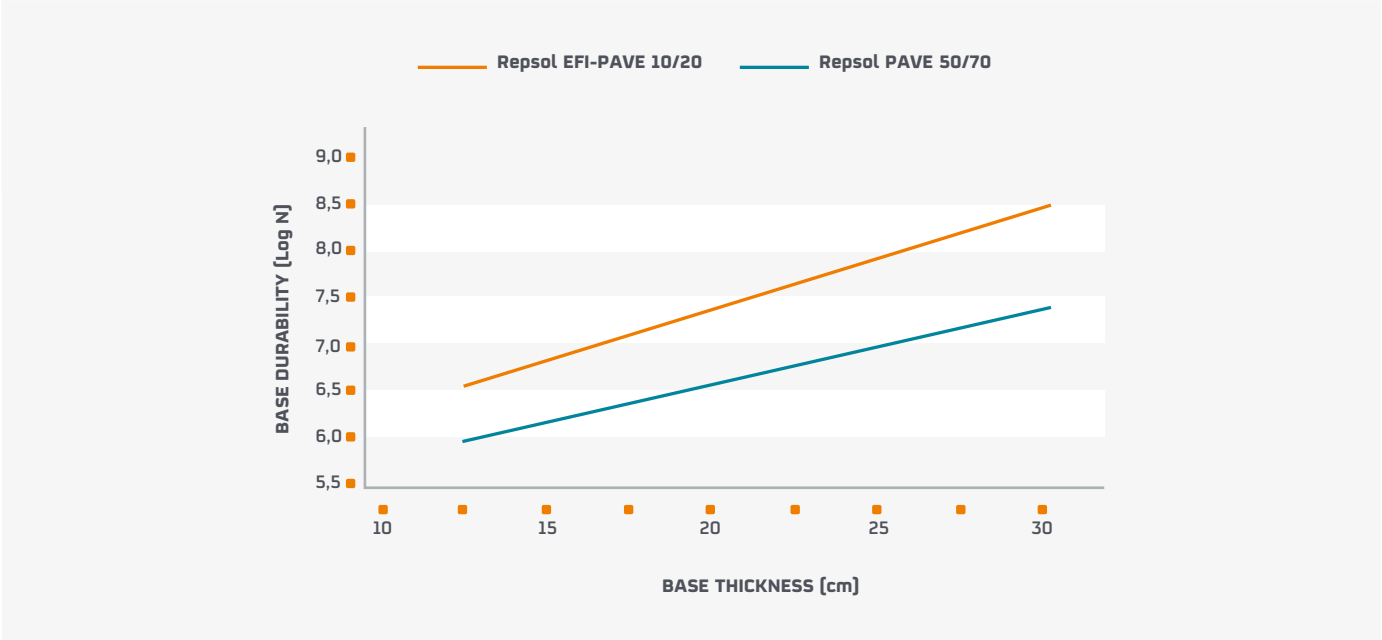


Figure 1. Structural behaviour. Data are indicative, not contractual, nor subject to specification.

### Plastic deformations

Repsol EFI-PAVE hard paving bitumen gives the designed mix extraordinary behaviour against plastic deformation.