

RECIEMUL 90 - AT (C60B5 REC)

DEFINITION:

Slow setting cationic bituminous emulsion made with special bitumen for the recycling of milled material in a hot mix plant using half-warm manufacturing technique and allowing high RAP rates (>60%). Compliant with the specifications contained in standard EN 13808:2013 for a C60B5 REC type emulsion. The properties of the residual binder will be adapted to the characteristics and ageing of the RAP, as well as the percentage to be used in the manufacturing process of the recycled mixture.

SPECIFICATIONS:

Characteristics	Units	Standard	Min.	Max.
Properties of the emulsion				
Particle polarity	-	EN 1430	Positive	
Breaking value (Forshammer filler)	-	EN 13075-1	170	-
Binder content (per water content)	%	EN 1428	58	62
Efflux time (2 mm, 40 °C) (*)	s	EN 12846-1	15	70
Settling tendency (7 days storage)	%	EN 12847	-	10
Residue on sieving (0,5 mm sieve)	%	EN 1429	-	0,10
Water effect on binder adhesion	%	EN 13614	90	-
Residual binder		EN 1431		
Penetration (25 °C)	0,1 mm	EN 1426	-	220
Softening Point	°C	EN 1427	35	-
Recovered binder		EN 13074-1		
Penetration (25 °C)	0,1 mm	EN 1426	-	220
Softening Point	°C	EN 1427	35	-
Stabilised binder		EN 13704-2		
Penetration (25 °C)	0,1 mm	EN 1426	-	150
Softening Point	°C	EN 1427	39	-

(*) Efflux time between 40 – 130 s is allowed depending on the characteristics of the materials to be used.

Revision nº1 - Approved: 10/11/2022 – Next revision: 10/11/2027

APPLICATIONS:

- Half-warm recycling with emulsion for high RAP rates (>60%).

RECOMMENDED WORKING TEMPERATURES:

- Application temperature (°C): 20-60. Within this range, heating the emulsion is not necessary for its application but, if the emulsion must be heated, special care must be taken to not exceed the 60°C limit. In this case, it is recommended to carry out the heating with means that guarantee correct temperature control and its homogeneity throughout the emulsion, avoiding specific overheating that could damage the product.

RECOMMENDED DOSAGE:

- It depends on the type of treatment, the characteristics of the reclaimed asphalt and the new aggregates, the final mixture, the position of the layer on the pavement and the traffic category.
- According to experience, the dosage should be around 3.0 to 6.0% of emulsion over the weight of reclaimed asphalt plus new aggregates.

GENERAL RECOMMENDATIONS:

- Given its composition, this type of emulsion should be transported in full cisterns or at least filled up to 90% of its capacity, always at temperatures below 60°C to avoid any partial breakages during transport.
- If these emulsions are going to be stored for more than 7 days, it is recommended to homogenize prior to their use.
- The appropriate equipment must be used to reach the emulsion's proper dosage and the rest of the components of the mixture.

Revision nº1 - Approved: 10/11/2022 – Next revision: 10/11/2027