

RECIEMUL (C60B5 REC)

DEFINITION:

Slow setting cationic bituminous emulsion for cold in plant or in place recycling mixtures, corresponding to C60B5 REC type emulsion according to standard EN 13808:2013.

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	%	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	35	-

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

(**) If the emulsion is going to be used in hot areas or under intense traffic conditions, harder bitumen can be used. In such case, the residual binder penetration will be ≤150 and the softening point ≥39.

APPLICATIONS:

- Cold recycling with emulsion for binder or base courses.
- Cold in place or in plant recycling.

RECOMMENDED WORKING TEMPERATURES

- Application temperature (°C): 10-40. Regularly, the emulsion will be used at the supply temperature which will always be less than 50°C. It is not recommended heating the emulsion for this application because a high temperature will cause a stability reduction during the coating of the material to be recycled which leads to an early breakage in the fabrication of the mixture.

RECOMMENDED DOSAGE:

- It depends on the type of treatment, the characteristics of the reclaimed asphalt and the aggregates, the final mixture, the position of the layer on the base surface and the traffic category.
- For more than 90% RAP approximately around 2.5 to 5.0% of emulsion over the total mass (RAP plus new aggregates).
- Between 50-90% RAP approximately around 4.0 to 6.0% of emulsion over the total mass (RAP plus new aggregates).
- For less than 50% RAP approximately around 6.0 to 8.0% of emulsion over the total mass (RAP 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 recycled mixture.