



## SUPERPLAST

### POLYMERIC COMPOUND FOR BITUMINOUS MIXES MODIFICATION

#### GENERAL INFORMATION AND BENEFITS

- SUPERPLAST is used for the production of all types of asphalt concrete, whenever a mixture modification is necessary in order to improve its mechanical performance.
- The bituminous mix's modification involves the increase of the mechanical resistance and of the complex modulus, the decrease of the deformations accumulation with the loads repetition and an improvement of the fatigue behaviour.

#### DOSAGE

Generally 4 - 10% on the weight of bitumen\*, depending on the type of pavement to construct.

\* It is always advisable to determine the optimal percentage through laboratory tests, as it may differ from the indicated ranges.

#### COMPOSITION

Mixture of plastomeric polymers.

#### PROPERTIES

Aspect	granules
Colour	shades of grey
Apparent density at 25°C	0.4 - 0.6 g/cm <sup>3</sup>
Softening point	160 - 180°C

#### PACKAGING AND STORAGE

Heat-melting bags or big-bags.

Store in the original packaging, away from heat sources and sheltered from adverse weather and UV rays.



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#### GUIDELINES FOR LABORATORY USE

##### GENERAL INFORMATION AND WARNINGS

- It is recommended to keep the temperature at 170 - 180°C (preferably 180°C) during all the mixing phases.
- SUPERPLAST is suitable for the production with a laboratory mixer. Manual mixing requires high energy and frequency, as well as an increase in mixing times.
- Before compaction with a gyratory or Marshall compactor, the sample should be conditioned in the oven at the appropriate temperature for about 2 hours.

##### USE

1. Use the particle size distribution related to the pavement to construct.
2. Heat the aggregates.
3. Add the set amount of SUPERPLAST and blend for 40 - 60 seconds.
4. Put the mixture back in the oven until the polymer is properly softened (preferably at least 30 minutes) then introduce it in the laboratory mixer.
5. Introduce the set amount of bitumen and blend for at least 20 - 30 seconds until the aggregates are completely covered.
6. Introduce the filler at the same temperature of the aggregates and blend until it is completely incorporated in the mixture.
7. Blend the mixture for additional 5 minutes.

#### GUIDELINES FOR PLANT USE

##### GENERAL INFORMATION AND WARNINGS

- It is recommended to keep the temperature at 170 - 180°C (preferably 180°C)\* during all the mixing phases.
- The addition of SUPERPLAST can generally lead to an increase in the total mixing time, to be evaluated according to the type of plant (continuous or batch) and to the production method.
- After production, the mixture should be laid and rolled at the optimum compaction temperature.

\* The indicated temperatures may vary depending on the type of bitumen used and on the atmospheric conditions during the laying.

##### USE

1. Use the particle size distribution related to the pavement to construct.
2. Heat the aggregates and introduce them in the mixer.
3. Add the amount of SUPERPLAST defined by prequalification.
4. Introduce the amount of bitumen defined by prequalification and blend until the aggregates are completely covered.
5. Finally, introduce the filler and blend until it is completely incorporated in the mixture.