



## Stabilization and dispersed reinforcement of hot asphalt mixes



**SMAPOL®** - the additive to hot asphalt mixes is obtained from the processing of textile cords recovered during the recycling process of end-of-life tires (ELT). The fibres from ELT are formed by mechanical crushing and separation from the rubber particles. In the additive production process, a multi-fibre mix consisting of polyester, polyamide and polypropylene fibres is optimised for the fibre content of each type, activated and modified.

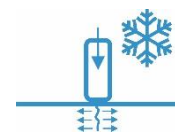
The innovative method of **SMAPOL®** granular additive production allows to take full benefits of the advantages of each type of fiber to stabilize and dispersed reinforcement of hot asphalt mixes in order to increase reliability and durability

#	Identification characteristics	Identification properties	Units	Test methods
<b>Main features (production)</b>				
1	Appearance and shape	Dark grey (black-grey) cylindrical granules		OL
2	Bulk density	410-460	g/dm <sup>3</sup>	SF
3	Granule length	5-25	mm	SF
4	Diameter of granules	5-7	mm	SF
5	Solubility in water	Insoluble	-	SF
6	Moisture	≤ 7	%	SF
7	Content of fine particles	≤ 3	%	SF
<b>Additional features (design)</b>				
1	Strength of granules	5-10	kgf	SF
2	Index of change in strength of granules	≥ 1,5	-	SF
3	Synthetic fibre efficiency index	≤ 1,2	-	SF
OL – organoleptic				
SF – Standard Firmy SF_RECYKL_SMAPOL 1.0-2022				

The component composition of **SMAPOL®** additive and the mechanical properties of the cylindrical granules obtained in the pelleting process under appropriate optimal conditions, ensure that it can be fed into the mixer of the asphalt mixes plant by any of the known methods and evenly mixed during the production of HMA at standard temperature and technical process.



Road pavements made of hot asphalt mixes enhanced with the addition of **SMAPOL®** differ not only in increased structural uniformity, but also increased resistance to ruts, thermal cracking and fatigue.



AC, SMA,  
MA, BBTM,  
PA ...

The dosage of **SMAPOL®** to HMA with an increased bitumen content, providing the required binder drainage index, is usually from 0.2% to 0.6 % by weight of the mineral components of the mix, i.e. from 2.0 to 6.0 kg per 1 ton, depending on the properties of the bitumen used and the granulometry of hot asphalt mixes.



**SMAPOL® additive is the most cost-effective way to improve the physico-mechanical properties of hot asphalt mixes among known analogues based on the method of use**



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