

ASPHALT MIXING PLANT INSTRUCTION

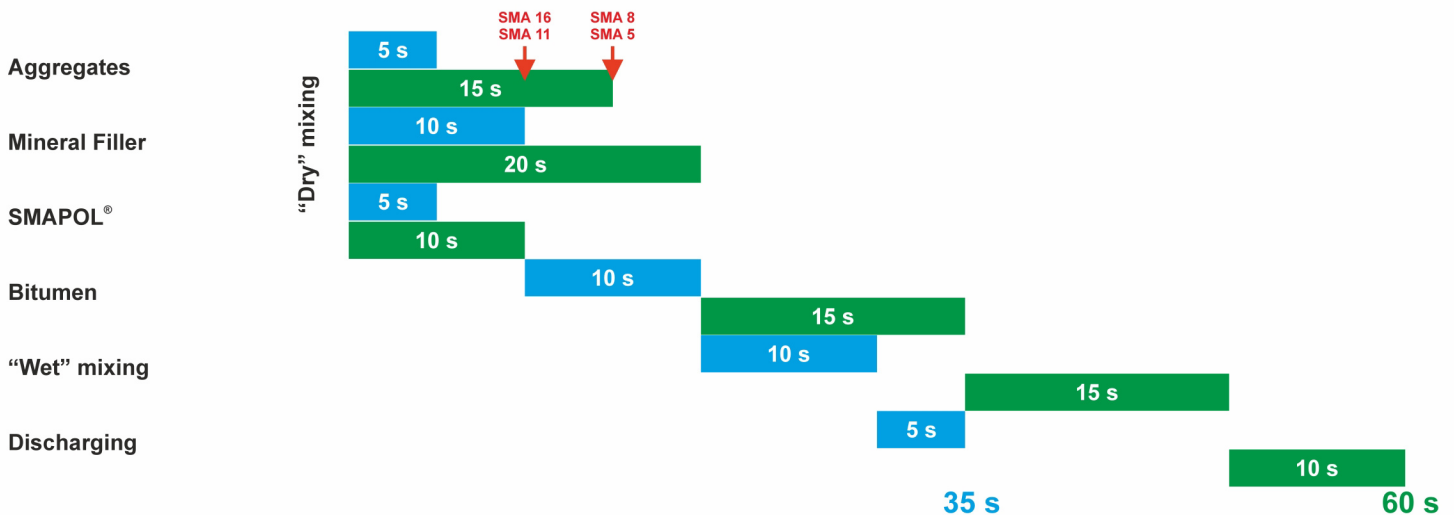
Preparation of SMA Mixtures with SMAPOL® Additive

1. Mixing mode (batch mix asphalt plant)

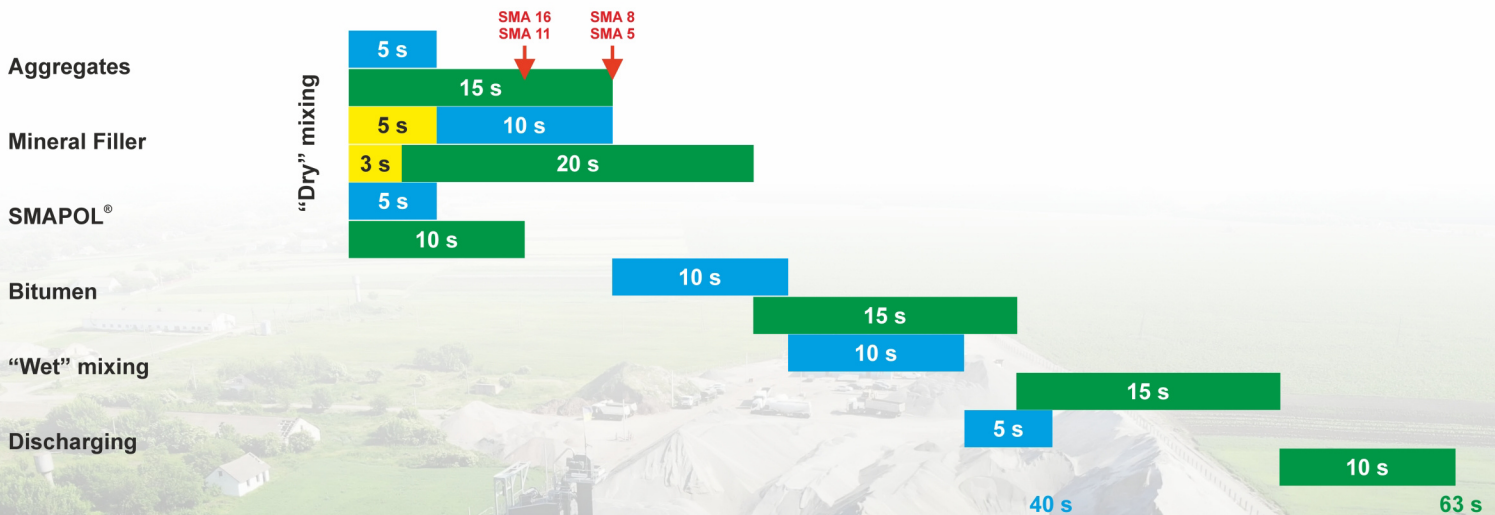
Industrial preparation of SMA asphalt mixtures with the SMAPOL® additive is carried out in standard mode, as in the case of cellulose stabilizing additives.

The duration of the complete cycle and subcycles of dosing and mixing of components depends on the technological characteristics and technical condition of the mixer of the asphalt mixing plant.

In general, the mixing mode can be represented by the following flow diagram:



To improve the uniformity of SMAPOL® additive distribution in asphalt mixture with batches exceeding 1.5 tons, it is recommended to delay the addition of mineral filler by 3-5 seconds. With proper optimization of the mixing cycle, this does not usually result in an increase in its duration.



↓ Approximate maximum mixing time

2. Trial batches

The optimal mixing mode must be defined before the designed composition of the SMA asphalt mixture with the addition of SMAPOL[®] is put into serial production. The recommended minimum size of the industrial trial sample of SMA asphalt mixture with the addition of SMAPOL[®] for each mixing mode being tested must be at least 3 batches with the standard capacity.

The uniformity of the SMAPOL[®] additive distribution in the asphalt mixture cannot be assessed visually after the "dry" mixing stage!!!

This is because the SMAPOL[®] additive, like most other stabilizing additives, is only finally distributed effectively in the asphalt mixture during the "wet" mixing stage.

It is recommended to evaluate the uniformity of the SMAPOL[®] additive distribution in the asphalt mixture by testing a sample taken from the third industrial batch, based on an analysis of the variation in properties (e.g., binder drainage index) depending on the mixing mode.

3. Mixture temperature

Due to the optimal sorption capacity of the synthetic fiber included in the SMAPOL[®] additive, there is no need to raise the temperature of the finished SMA asphalt mixtures to the upper limit set depending on the bitumen grade. Asphalt mixtures with the SMAPOL[®] additive can be effectively paved and compacted under permissible standard ambient temperature conditions and standard technological temperature modes. In this regard, it is recommended to maintain the temperature of the finished mixture when it is discharged from the mixer at least 5-10°C below the upper permissible limit. For example, for SMA asphalt mixtures based on 50/70 bitumen, the temperature can not exceed 165-170°C, and for PMB – 175-180°C.

4. Dosing and feeding of additive

The dosing and feeding of the SMAPOL[®] additive must be carried out automatically using special weighing-dosing equipment. Preference should be given to pneumatic dosing systems. The SMAPOL[®] additive doser should be adjusted to ensure the required mixing time and synchronization with the sequence of addition of other asphalt mixture components. This is usually achieved by adjusting the opening and closing times of the valves in the dosing system and the feed rate.

If you have any additional questions, please contact our consultants:

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The logo for addbit, featuring the word "addbit" in a stylized, lowercase font. The "add" part is in red and the "bit" part is in black.The logo for RECYKL, featuring the word "RECYKL" in a bold, black, uppercase font. Above the letters "CYKL" is a green recycling symbol. Below the word "RECYKL" is the text "ORGANIZACJA ODZYSKU S.A." in a smaller, black, uppercase font.The logo for SMAPOL, featuring a stylized "S" icon to the left of the word "SMAPOL" in a bold, black, uppercase font. Below "SMAPOL" is the tagline "JUST ADDITIVE" in a smaller, black, uppercase font.