

Asphalt reinforcement Forta Fi

Forta Fi asphalt reinforcement is a unique, patented product in the world, based on polymer fibers, which provides outstanding effects in significantly improving the quality of asphalt and extending its life, while providing the possibility of savings in the production and laying of asphalt.

Forta Fi, an asphalt reinforcement, consists of Aramid and Polyolefin fibers. The fibers are 19 mm long. During mixing with asphalt, polyolefin fibers melt and enrich (modify) the bitumen, increasing its adhesive properties and creating a non-viscous environment for uniform distribution of Aramid fibers throughout the asphalt mass. Aramid does not melt at asphalt mixing temperatures. Aramid has a melting point of 427°C. Aramid is 5 times stronger than steel (breaking strength 2,758 MPa). During the mixing of Fort Fi with asphalt, Aramid fibers are dispersed in three-dimensional form (isotropic) in the asphalt and perform asphalt reinforcement.

Forta Fi asphalt reinforcer, is producing in packages of 500 g. A 500 g package of Fort Fi is mixing with one ton of asphalt, of any type and in all layers of asphalt. Mixing of Forta Fi with asphalt is doing directly in the mixer of the asphalt plant.

Forta Fi is produced by the American company FORTA CORPORATION from Grove City, Pennsylvania, with over 35 years of experience, which is known as a leader in the production of concrete and asphalt reinforcements in the world. There is a global network that spans over 70 countries, on all continents of the world.

The advantages of using Fort Fi are numerous:

- Stronger and more durable asphalt,
- Extended service life of asphalt due to fatigue from 50% to 200%,
- Higher resistance to cracks from 100% to 340%,
- Higher resistance to rutting in asphalt from 25% to 32%,
- Ability to reduce asphalt thickness by up to 35%, while maintaining superior physical performance compared to ordinary asphalt of normal thickness.
- Possibility of immediate and long-term savings on asphalt,
- Savings from 33% to 35% in road maintenance, during the life cycle of asphalt,

- Resistant to extremely low temperatures (asphalt breaking point at -38.5 ° C) and shows very good performance at high temperatures (up to 80 ° C)
- Water resistant.
- Resistant to abrasion and raveling,
- Resistant to UV rays and resistant to asphalt oxidation.

Easy to use

Forta Fi is added to a mixture of asphalt with standard bitumen or modified bitumen, without requiring a change of recipe, no additional and special equipment on the Asphalt Plant or special equipment for paving and compaction of asphalt.

Taking into account the above properties, the use of Fort Fi asphalt reinforcement has proven to be successful, especially on those roads where ordinary asphalt has not shown results:

- Airports,
- Roads with high traffic frequency,
- Roads used by heavy vehicles,
- Steep and mountain roads,
- Sections of roads in front of traffic lights,
- Urban bus stations,
- Roads with deep rutting in asphalt,
- Roads with large cracks in the asphalt,
- Roads in areas with extremely low temperatures, and very high temperatures.

Forta Fi is the result of a collaboration between FORTA CORPORATION and Arizona State University, which, after long-term research, certified the product and in 2009 it was launched on the market.

Forta Fi is widely tested in all renowned Institutes and laboratories of the world. The results showed the exceptional properties of this reinforcement. Thanks to these results and the results in the field, Forta Fi has made a real revolution in asphalt production technology.