
PureGRAPH® MB-EVA Bitumen Graphene enhanced EVA masterbatch

Function PureGRAPH® MB-EVA Bitumen is a graphene-loaded carrier masterbatch, designed for blending into the asphalt mixture to improve mechanical properties and stability. It can also be added to the bitumen storage tanks to create a graphene-enhanced polymer modified binder without the need for a high shear mixing.

Description PureGRAPH® MB-EVA Bitumen is a graphene enhanced Ethylene-Vinyl Acetate (VA) copolymer masterbatch. The masterbatch contains First Graphene's few-layer, high-performing graphene additives.



Features and Benefits:

- Easy to incorporate into a range of bitumen-based systems using standard processing techniques.
- Supplied in pellet form as a masterbatch for ease of dosing and handling.

Typical Applications This masterbatch is intended for use as a graphene-enhanced binder for bitumen used in asphalt systems. The Vinyl Acetate content has been selected for compatibility with typical penetration grade bitumen used in the road construction industry.

The addition rate is subject to customer trial and approval. For more detailed information and recommendations regarding specific application, please contact your First Graphene technical representative.

Processing The masterbatch can be processed in standard equipment.
Temperatures above 230°C should be avoided.

Typical Product Parameters

PureGRAPH® MB-EVA Bitumen	5-30	10-30	20-30	50-30
Graphene particle size (D_{V50}^1)	5 μm	10 μm	20 μm	50 μm
Composition % w/w (Graphene solids in EVA)			30	
Carrier resin		Ethylene-Vinyl Acetate		

Masterbatch

Vinyl Acetate content (% Wt)	19-21
Melt Index 190°C / 2.16 kg (g/10min)	17-23
Melting point (°C)	83

Availability & Packaging	Samples: 50g - 500g supplied in screw cap containers Bulk volume: Sealed foil bags
Shelf Life & Storage	It is advised that products are kept sealed and stored in cool, dry conditions. It is recommended the Masterbatch is dried before use.
Handling Information	Please consult material safety data sheet (MSDS) for additional handling information.

¹ D_{V50} volumetric average, measure by a laser diffraction technique.

LIMITED WARRANTY INFORMATION:
The information contained herein is offered in good faith and is believed to be accurate at the time of printing. This information should not be used as a substitute for your own quality control and/or testing procedures to ensure that our products are safe, effective and fully satisfactory for the intended end use. Suggestions of use shall not be taken as inducements to infringe any patent.

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