

Graf-M™ Masterbatches for Insulation Boards

TECHNICAL DATA SHEET 618

Product Overview

Graf-M™ masterbatches are used in the building and construction industry in the manufacture of insulation boards (“Grey Board”) to increase their insulation value and reduce degradation to UV radiation. An increase in insulation value of ~ 20% can be accomplished with a graphite loading level of ~ 2-6%.

Three grades have been developed for the insulation board market with other formulations available on request.

- Graf-M EPS (01) for expanded polystyrene (EPS) insulation boards. The carrier is a general-purpose polystyrene (GPPS)
- Graf-M XPS (01) for extruded polystyrene (XPS) insulation boards. The carrier is ethyl methyl acrylate (EMA)
- Graf-M XPS (02) for extruded polystyrene (XPS) insulation boards. The carrier is general-purpose polystyrene (GPPS)

Typical Properties

Grade	Carrier	Graphite Loading %**	Melt Flow Index g/10 min*	Moisture Content %***
Graf-M™ EPS (01)	GPPS	40	5.0 (200°C, 5.0 kg)	0.2%
Graf-M™ XPS (01)	EMA		1.0 (230°C, 2.16kg)	
Graf-M™ XPS (02)	GPPS		0.18 (200°C, 5.0kg)	

*Melt Flow Index is measured using ASTM D1238

**Graphite Loading is measured using an ash test: Modified ASTM D5630-13. Modification – lidded crucible burn 0.5 g at 600°C 10 minutes.

***Moisture content % is measured using a validated drying oven method according to USP/Ph Weight Loss in Drying Halogen moisture analyzer HX204 Mettler Toledo

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