

Expanded Graphite Powder Masterbatches

TECHNICAL DATA SHEET 606

Product Overview

Graf+® Expanded Graphite Powder Masterbatches are available in a variety of polymer systems that are tailored for use in Polystyrene (PS), Low-Density Polyethylene (LDPE) or Polyethylene Terephthalate (PET) applications. The primary market is insulation foam products for the building and construction industry with potential applications in automotive and energy storage.

The expanded graphite, by virtue of its high surface area platelet structure, performs multiple functions:

- Acts as an ultraviolet light UV stabilizer
- Improves thermal insulation value by attenuating infrared radiation ~ 20% more energy savings
- Acts as a gas barrier
- Acts as a nucleating agent during foaming - modifies the rheology of the blowing agent-laden melt and reduces the amount of static on the board surface during the shaping process

Typical Properties*

Designation	Graphite Loading wt. %	Melt Flow Index g/10min**	Surface Resistance ohm***
Graf+MB-PS (TG-865)	38-42	1.00 (230°C, 2.16kg)	7.8x10 ⁵
Graf+MB-LDPE (TG-868)	28-32	1.00 (190°C, 2.16kg)	8.2x10 ⁵
Graf+MB-PET (TG-869)	18-22	2.20 (230°C, 2.16kg)	1.1x10 ⁵

Graphite Masterbatches are customized upon request.

Notes:

* Properties listed are typical and cannot be used as accept/reject specifications.

** Melt Flow Index is measured using ASTM D1238.

*** Surface Resistance is measured using a ProStat PRF-912B miniature concentric ring set per ESD S11.11 Surface Resistance test standard.

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