EASTMAN

Technical Data Sheet

Eastman™ G-3003 Polymer

Applications

- Adhesives/sealants-b&c
- Case & carton sealing closings
- Polymer modification
- Protective coatings
- Specialty tape

Key Attributes

- Balances attraction between polar fillers / reinforcements and non polar polymers
- Coupling agent for PP composites
- Maleic anhydride grafted polypropylene (PP)

Product Description

Eastman™ G-3003 is a maleic anhydride grafted polypropylene recommended as a coupling agent for polypropylene (PP) composites. Because of the polarity and anhydride functionality, Eastman™ G-3003 is useful for laminating, as a compatibilizer for PP blends with nylon or EVOH, and for enhancing the strength of composites that utilize reinforcements / fillers such as glass, talc, calcium carbonate, and metals. Eastman™ G series polymers are products of Eastman Chemical Company and are protected under one or more of the following U.S. patents: 5,955,547; 6,046,279; 7,408,007; 7,683,134; and their foreign equivalents.

Typical Properties

Property[a]	Test Method[b]	Typical Value, Units[c]
General		
Polymer Type		Ma-PP
Acid Number (mg KOH/g)		9
Ring and Ball Softening Point		158 DSC Tm,°C
Penetration Hardness[d]	ASTM D 5	<1 dmm
Viscosity, Brookfield		
@ 125°C (257°F)		Solid @ this temp
@ 190°C (374°F)		60,000 cP
Molecular Weight[e]		
M_w		52,000

[a] *Unless noted otherwise, all tests are run at 23°C (73°F) and 50% relative humidity.*
[b] *Unless noted otherwise, the test method is ASTM.*
[c] *Units are in SI or US customary units.*
[d] *Needle under 100-g load for 5s @ 25 deg C, tenths of mm*
[e] *Molecular weight measured via Gel Permeation Chromatography (GPC) using polystyrene standards*

Comments

Properties reported here are typical of average lots. Eastman makes no representation that the material in any particular shipment will conform exactly to the values given.

Compatibility and Solubility

Eastman™ polymers are compatible with many polymers, resins, and natural and synthetic waxes.

Packaging

Eastman™ G-3003 polymer is supplied as free-flowing pellets, packaged in multiwall paper bags with a polyethylene coated inner liner [22.67 kg (50 lb) net weight]. The bags are palletized and stretch wrapped to prevent contamination during storage and shipment. Many Eastman™ polymers are also shipped in a variety of bulk containers.

Storage

Due to the thermoplastic behavior, pastillated and flaked resins may fuse, block or lump. This can be accelerated under any of the following conditions: 1) above ambient temperature, 2) prolonged storage, 3) pressure, e.g., stacking pallets, or a combination of these conditions. This is particularly applicable for low softening point resin grades.

In order to maintain the flake or pastille shape, we therefore recommend storing the material in a temperature-controlled area, be careful with stacking material or applying pressure and preventing prolonged storage.

It should be noted that lumping does not have a negative impact on the product specifications. Due to the nature of the product, claims regarding lumping cannot be accepted.

Resins are prone to gradual oxidation, some more so than others. This could result in darkening and/or it could have an adverse effect on the solubility of the resin in organic solvents or on its compatibility with polymers. Accordingly, it is recommended that strict control of inventory be observed at all times, taking care that the oldest material is used first.

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