

Technical Data Sheet

Eastoflex™ E1045PL Amorphous Polyolefin

Applications

- Adhesives/sealants-b&c
- Asphalt
- Automotive protective coatings
- Carpet construction
- Case & carton sealing closings
- Film modification
- Hygiene adhesives
- Labels non food contact
- Lubricants
- Packaging components non food contact
- Packaging tape
- Paints & coatings
- Polymer modification
- Road markings
- Roofing ingredients
- Specialty tape
- Tape non food contact
- Wax ingredients
- Wire/cable

Key Attributes

- Broad compatibility with numerous elastomers, polymers, and other tackifying resins
- Broad temperature service range
- Excellent thermal and UV stability
- Excellent water and moisture resistance
- Low color
- Low odor

Product Description

Eastoflex™ Amorphous Polyolefins (APOs) are characteristically saturated, low molecular weight, propylene-based olefin polymers. These products are inherently soft, tacky, and flexible, having a broad compatibility with numerous elastomers, polymers, and tackifying resins. Eastoflex™ APOs are characterized by consistent quality, low odor, excellent heat stability, and low color. Eastoflex™ E1045PL is a copolymer of propylene and ethylene, pelletized and coated with a polypropylene powder. It has a melt viscosity of 4,500 mPa•s at 190°C.

Typical Properties

Property ^a	Test Method ^b	Typical Value, Units ^c
General		
Viscosity, Brookfield ^e	ASTM D 3236	4500 cP
Ring and Ball Softening Point ^d	ASTM E 28	140 °C (284 °F)
Glass Transition Temperature (T _g)	ASTM D 3418	-22 °C (-8 °F)
Penetration Hardness	ASTM D 5	40 dmm
Color, Gardner		
Molten		1.0
Physical Form		Pellets

^aUnless noted otherwise, all tests are run at 23°C (73°F) and 50% relative humidity.

^bUnless noted otherwise, the test method is ASTM.

^cUnits are in SI or US customary units.

^dRBSP of pellet coating on formulas ending in "PL" is 163 deg C. Pellet coating typically 1.5% to 2% by weight.

^eViscosity, Brookfield @ 190°C

Compatibility and Solubility

Broad compatibility with numerous elastomers, polymers and tackifying resins. Eastoflex™ APOs have shown compatibility with the following materials: aliphatic tackifying resins, asphalt, butyl rubber, hydrogenated

tackifying resins, low density polyethylene, mineral oil, natural rubber, polybutene, polybutylene, polypropylene, polyterpene tackifying resins, and SEBS block copolymers.

Packaging

Eastoflex™ E1045PL is available in pellets coated with polypropylene powder to prevent blocking. It is packaged in polypropylene bags (50 pound net weight, 2,250 pound net weight per pallet) or in boxes lined with low density polyethylene (50 pound net weight, 900 pound net weight per pallet).

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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