

# Technical Data Sheet

## Eastoflex™ E1003 Amorphous Polyolefin

### Applications

- Adhesives/sealants-b&c
- Asphalt
- Automotive protective coatings
- Carpet construction
- Case & carton sealing closings
- Film modification
- 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, good heat stability, and low color. Eastoflex™ E1003 is a copolymer of propylene and ethylene having a melt viscosity of 300 mPa·s at 190°C.

### Typical Properties

Property <sup>a</sup>	Test Method <sup>b</sup>	Typical Value, Units <sup>c</sup>
<b>General</b>		
Viscosity, Brookfield <sup>e</sup>	ASTM D 3236	300 cP
Ring and Ball Softening Point	ASTM E 28	120 °C (248 °F)
Glass Transition Temperature (T <sub>g</sub> )	ASTM D 3418	-30 °C (-22 °F)
Penetration Hardness	ASTM D 5	100 dmm
Color, Gardner		
Molten		1.0
Physical Form <sup>d</sup>		Molten/Solid

<sup>a</sup>Unless noted otherwise, all tests are run at 23°C (73°F) and 50% relative humidity.

<sup>b</sup>Unless noted otherwise, the test method is ASTM.

<sup>c</sup>Units are in SI or US customary units.

<sup>d</sup>Molten available in tank trucks or railcars. Solid may be available in cylinders or drums.

<sup>e</sup>Viscosity, Brookfield @ 190°C

### 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

Broad compatibility with numerous elastomers, polymers and tackifying resins. Eastoflex™ APOs have shown to be compatible 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

### **Made to Order Package Types:**

Eastoflex™ E1003 can be packaged in drums. These are 22.5-inch inside diameter drums, 4 drums per pallet. Drummed material is sold by net weight per pallet, approximately 1,200 lb per pallet.

Eastoflex™ E1003 is available for blending with other APOs. Blends with E1003 and others APOs can allow for a more convenient product form.

Please be aware that there are additional costs and lead times associated with the made to order package types.

## Storage

Molten material should be handled entirely in closed systems blanketed with an inert gas, such as nitrogen. Molten material can be stored satisfactorily under nitrogen in a steel tank at 350°F to 390°F. Inside storage is recommended for Eastoflex™ APOs packaged in drums or cylinders.

---

*Eastman and its marketing affiliates shall not be responsible for the use of this information, or of any product, method, or apparatus mentioned, and you must make your own determination of its suitability and completeness for your own use, for the protection of the environment, and for the health and safety of your employees and purchasers of your products. No warranty is made of the merchantability of fitness of any product, and nothing herein waives any of the Seller's conditions of sale.*

© 2019 Eastman Chemical Company or its subsidiaries. All rights reserved. As used herein, ® denotes registered trademark status in the U.S. only.