EASTMAN

Technical Data Sheet

Eastman NPG™ Glycol Platelets

Applications

- Adhesives/sealants-b&c
- Architectural coatings
- Auto oem
- Auto refinish
- Automotive
- Building materials
- Coil coatings
- Construction chemicals
- Equipment & machinery
- Inks
- Intermediates
- Lubricants
- Paints & coatings
- Polycarbonate
- Polymer modification
- Process additives
- Protective coatings
- Textile
- Wind energy

Key Attributes

- Excellent thermal stability for low resin color
- Excellent weathering
- Good chemical and stain resistance
- Good chemical, stain, and humidity resistance
- Good hardness/flexibility balance
- Ideal glass transition temperature range
- Outstanding powder flow and fluidization characteristics
- Outstanding weathering
- Rapid reactivity during esterification and cure

Product Description

UPAC: 2,2-Dimethyl-1,3-Propanediol

Eastman NPG glycol is the industry standard glycol component in high-quality polyester resins for industrial coatings and fiberglass-reinforced plastics applications. Most polyester resin formulations contain NPG as the sole glycol component, or it is used in conjunction with a modifying glycol to achieve desired properties.

NPG and Eastman PTA (Purified Terephthalic Acid) are the primary components for polyester powder coating resins. Eastman NPG delivers the overall toughness, stain and detergent resistance, and outdoor weathering performance required of coil coatings for appliances and products for exterior applications. Gel coats containing unsaturated polyesters made from NPG and Eastman PIA (Purified Isophthalic Acid) provide excellent weatherability and water and stain resistance.

Eastman NPG is also used in polyester polyols for polyurethane coatings for the automotive, industrial maintenance, transportation, and aerospace markets.

In the United States, neopentyl glycol may be lawfully used as a reactant for coatings and other products intended for use in contact with foods under specific federal food additive regulations.

Eastman NPG glycol is available in three forms:

- Platelets in bags that exhibit excellent caking stability on storage.
- Bulk molten shipped in tank trucks that require a heated tank for storage.
- Eastman NPG 90 glycol, a liquid at or above 38°C containing 90 parts NPG and 10 parts water, is delivered in bulk and can be stored at a much lower temperature than molten NPG.

Typical Properties

Property	Typical Value, Units
General	

Molecular Weight	104.15
Empirical Formula	$C_5H_{12}O_2$
Appearance	
@ 25°C (77°F)	White platelets
@ 38°C (100°F)	White platelets
Assay	99.0 wt % min.
Water	0.3 wt % max.
Color (50% Aqueous Solution), Pt-Co Scale	15 max.
Melting Point	124-130 °C (255-266 °F)
Boiling Point	210 °C (410 °F)
Specific Gravity	
@ 20°C/20°C	1.06
Bulk Density	
@ 21°C	660-690 kg/m^3 (41-43 lb/ft^3)
Flash Point	
Cleveland Open Cup	132 °C (270 °F)
Tag Closed Cup	109 °C (228 °F)
Autoignition Temperature	388 °C (730 °F)
Effects on Metals[a]	No corrosive effect on mild steel or tin plate.

[a] *Slightly corrosive to aluminum.*

Storage

Inside storage is recommended. Flaked, pelletized or pastillated forms of this product may remass under the following conditions:

- If stored near sources of heat
- Upon prolonged storage above 30 deg C (86 deg F)
- With pressure (e.g., stacking pallets two or more high)

Remassing has no influence on the physical properties of the finished product. However, it is strongly recommended that strict control of stored inventory be observed at all times, taking care that the oldest material is used first.

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.

11/7/2019 10:07:53 AM