EASTMAN

Technical Data Sheet

Eastman™ HPHP Glycol Nuggets

Applications

- Auto oem
- Auto refinish
- Automotive
- Coil coatings
- Coil coatings-appliances
- Paints & coatings
- Process additives
- Protective coatings

Key Attributes

- Excellent weathering
- Improved flexibility
- Improved resin solubility
- Lower resin melt viscosity
- Reduced resin crystallinity
- Reduced resin glass transition temperature

Product Description

IUPAC: 3-Hydroxy-2,2-Dimethylpropyl 3-Hydroxy-2,2-Dimethylpropanoate

Eastman™ HPHP glycol, hydroxypivalyl hydroxypivalate, is a difunctional ester-glycol used for manufacturing polyester resins for the powder, coil, and automotive coatings market. HPHP is structurally similar to Eastman NPG™ glycol so they share many of the same structure/property relationships.

Resins containing HPHP impart flexibility to coatings while maintaining weathering and the overall good balance of mechanical properties provided by NPG. Consequently, HPHP is an excellent choice for automotive primer surfacers with increased chip resistance and coil coatings that require a high degree of flexibility and exterior durability. In powder coatings, HPHP enhances the appearance of the coating film by improving flow and leveling during cure without compromising package stability.

Eastman™ HPHP is available in three forms:

- Cast solid in drums requiring a hot room or drum heater to melt the drum contents for removal.
- Free-flowing nuggets in bags that have good resistance to caking.
- Bulk molten shipped in tank trucks requiring a heated tank for storage.

Contact us for more information, to request a sample, or to receive a copy of Eastman publication, Storage and Handling of HPHP Glycol™.

Typical Properties

Property	Typical Value, Units
General	
Molecular Weight	204.27
Empirical Formula	$C_{10}H_{20}O_2$
Appearance	White, irregularly shaped crystalline nuggets
Color (Molten) Pt-Co Scale	10 max.
Assay	97.5 wt % min.
Neopentyl Glycol	1 wt % max.
Aldehyde as Hydroxypivaldehyde	0.5 wt % max.
Water	0.5 wt % max.
Acidity as Acetic Acid	0.5 wt % max.
Hydroxyl Content	15.3-17.3 %

Solubility in Water	12.8 %
Melting Point	46-50 °C (114.8-122 °F)
Boiling Point @ 760 mm Hg	293 °C (495.4 °F)
Flash Point Cleveland Open Cup	161 °C (322 °F)
Specific Gravity @ 55°C/20°C	1.01

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.

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