EASTMAN

Technical Data Sheet

Eastman™ CHDM-D

Applications

- Automotive
- Building materials
- Coil coatings
- Construction chemicals
- Equipment & machinery
- Intermediates
- Lubricants
- Metal coatings
- Packaging components non food contact
- Paints & coatings
- Polymer modification
- Process additives
- Protective coatings
- Soft drink packaging
- Sport drinks packaging
- Water packaging
- Wind energy

Key Attributes

- Excellent corrosion resistance in fiberglass-reinforced plastics
- Excellent hardness with some flexibility
- Good heat resistance and electrical properties
- High crystallinity
- High glass transition temperature relative to linear aliphatic glycols
- Highly reactive hydroxyl groups

Product Description

IUPAC: 1,4-cyclohexanedimethanol

Eastman™ CHDM-D is a symmetrical, high molecular weight cycloaliphatic glycol used to make saturated and unsaturated polyester resins. It is commonly used as a glycol modifier for resins containing Eastman NPG™ glycol.

Good chemical, stain, humidity, and corrosion resistance is achieved when using CHDM-D in polyester-melamine baking enamels for appliance, general metal, and automotive coatings. It delivers good hydrolytic stability to waterborne polyester resins. Durable polyester polyols for polyurethane coatings can be made for the industrial maintenance, transportation, automotive, and aerospace markets. It can also be used in unsaturated polyester resins for gel coats, sheet molding compounds, and injection moldable fiberglass-reinforced plastics.

Eastman™ CHDM-D is a mixture of cis and trans isomers. It is available in three forms:

- Cast solid in drums requiring a hot room or drum heater to melt the contents for removal.
- Bulk molten which requires a heated storage tank.
- CHDM-D90, a 90/10 weight percent solution of CHDM-D in water, which is liquid at room temperature for easier handling.

Contact us for more information, to request a sample, or to receive a copy of Eastman publication, Storage and Handling of 1,4-Cyclohexanedimethanol (CHDM).

Typical Properties

Property	Typical Value, Units
General	
Molecular Weight	144.21
Empirical Formula	$C_8H_{16}O_2$
Equivalent Weight (calculated)	72.1
Hydroxyl Number (calculated, 100% solids)	778
Form	White waxy solid

Color	
Pt-Co	10 max. (molten)
Assay	98.5 wt % min.
Water	0.2 wt % max.
cis Isomer	31 wt %
Melting Point	41-61 °C (106-142 °F)
Freezing Point[a]	24 °C (75 °F)
Boiling Point	284-288 °C (543-550 °F)
Viscosity[b]	
@ 23°C	877 cP
Density[b]	
@ 23°C	1023 g/L (8.54 lb/gal)
Flash Point	
Cleveland Open Cup	167 °C (333 °F)
Pensky-Martens Closed Cup	169 °C (337 °F)
Specific Gravity	
@ 20°C/20°C	1.02

[a]*CHDM-D typically supercools at 61°C (142°F) and solidifies at 24°C (75°F).*
[b]*Viscosity and density of CHDM-D at 50°C (122°F) supercooled.*

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.

4/4/2018 8:53:48 PM