

IsoQure[®] DCD 100 ETS

Chemical name: Dicyandiamide, Cyanoguanidine

CAS Number: 461-58-5

EINECS Number: 207-312-8

Material Definition

Appearance: White Powder

Melting Point: 207 - 212 °C

Dicyandiamide Content: Min. 99.5 %

Water Content: Max. 0.3 %

Application

IsoQure[®] DCD 100 ETS is a high-purity latent epoxy resin hardener which provides (in contrary to aliphatic or aromatic amines) an almost unlimited shelf life of the finished epoxy resin compound. At temperatures starting at about 180°C, IsoQure[®] DCD 100 ETS reacts with epoxy resins very fast. For lower curing temperatures, IsoQure[®] DCD 100 ETS is used in combination with adequate uron-catalysts like [IsoQure[®] UR 200 \(/products/epoxy/IsoQure-ur-200\)](#), [IsoQure[®] UR 300 \(/products/epoxy/IsoQure-ur-300\)](#), [IsoQure[®] 400 \(/products/epoxy/IsoQure-ur-400\)](#), [IsoQure[®] 500 \(/products/epoxy/IsoQure-ur-500\)](#), or [IsoQure[®] UR 600 \(/products/epoxy/IsoQure-ur-600\)](#).

Dicyandiamides like IsoQure[®] DCD 100 ETS are the most widely used epoxy resin hardeners for curing at elevated temperatures. Applications extend from laminates for electrical circuit boards to powder coatings, from structural adhesives to high- tech carbon fibre composites.

Reaction

IsoQure[®] DCD 100 ETS reacts with epoxy resin in two steps: 1.) Addition of NH groups to the epoxy ring, and 2.) condensation of OH groups with CN multiple bonds forming heterocyclic systems. One IsoQure[®] DCD 100 ETS molecule reacts with 6-7 epoxy groups; this results in an empirical H-equivalent weight of 12-14 for IsoQure[®] DCD 100 ETS.

An extremely fine particle size of the Dicyandiamide is of utmost importance to achieve high reactivity and an inclusion-free work piece. IsoQure[®] DCD 100 ETS is a superfine micronized Dicyandiamide of highest quality for the production of flawless epoxy resin articles.

Handling, Storage and Packaging

The processing and use of IsoQure[®] DCD 100 ETS requires adequate technical and professional knowledge. Please consult safety data sheet and observe local safety regulations.

The legal requirements prevailing in your country, especially in the avoidance of accidents, working hygiene and patent rights must be observed.

IsoQure[®] DCD 100 ETS has to be stored in tightly sealed original containers in a cool and dry place below 28°C. Properly stored it is stable for a minimum of two years.

Regulatory Information

EU REACH registered: Yes

Availability

- Americas (United States, Canada, South America)
- APAC (Asia-Pacific)
- ANZ (Australia, New Zealand)
- EU (European Union)
- PRC (People's Republic of China)
- UK (United Kingdom)

Disclaimer / Conditions

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Stated storage and shelf life times are minimum guaranteed values for a period starting on the day of shipment. After this period has expired, the product requires additional quality control testing but may very well still be within specification. For more information, refer to our [Shelf Life Policy \(/info/shelflife\)](#).

For updates on product information, please check this web page regularly:
<https://kautschuk.com/products/epoxy/dcd/isoquire-dcd-ets>
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