

## IsoQure<sup>®</sup> DCD 100 S

**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. 97.3 %

**Anti caking agent:** Max. 1.6 %

**Water Content:** Max. 0.3 %

## Application

IsoQure<sup>®</sup> DCD 100 S is a 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<sup>®</sup> DCD 100 S reacts with epoxy resins very fast.

For lower curing temperatures, IsoQure<sup>®</sup> DCD 100 S is used in combination with adequate uron-catalysts like [IsoQure<sup>®</sup> UR 200 \(/products/epoxy/IsoQure-ur-200\)](#), [IsoQure<sup>®</sup> UR 300 \(/products/epoxy/IsoQure-ur-300\)](#), [IsoQure<sup>®</sup> 400 \(/products/epoxy/IsoQure-ur-400\)](#), [IsoQure<sup>®</sup> 500 \(/products/epoxy/IsoQure-ur-500\)](#), or [IsoQure<sup>®</sup> UR 600 \(/products/epoxy/IsoQure-ur-600\)](#).

Dicyandiamides like IsoQure<sup>®</sup> DCD 100 S 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 S 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 S molecule reacts with 6-7 epoxy groups; this results in an empirical H-equivalent weight of 12-14 for IsoQure® DCD 100 S.

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 S 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 S 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 S 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:  
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