

Isobond[®] PC - 45

Compound 1: 45 % aqueous dispersion of a urethane-prepolymer produced by reaction of methylene-bis-(4-phenylisocyanate) with epsilon-caprolactam and a 4, 4-methylene-bis (phenyl carbanilate)

CAS Number: 54112-23-1

EC Number: 258-981-8

Compound 2: lphenyl (methylenedi-4,1-phenylene)-dicarbamate

CAS Number: 101-65-5

EC Number: 202-963-4

Product Summary

Isobond[®] PC-45 is an ultra-fine aqueous dispersion of a caprolactam and phenolic blocked methylene diisocyanate which is used as an adhesion promoter for rubber to textile bonding.

Blocked MDI is widely used for the treatment of polyester tyre cord and the treatment of reinforcing fabric for i.e. conveyor belts.

Isobond[®] PC-45 is a new adhesion promoter, made in Germany under a unique production process and combines the advantages of caprolactam- and phenolic-blocked MDIs. Isobond[®] PC-45 sets the standard in particle size, stability, and provides with a very wide processing window.

Application

Isobond[®] PC-45 is used as a technical auxiliary in combination with RFL (resorcinol-formaldehyde-latex) for surface treatment of technical yarns and fabrics. It is extremely efficient for improving the polyester/rubber adhesion in polyester tyre cord and reinforcing fabric in technical rubber products such as conveyor belts, etc.

It can be used in the single dip method as an additive to the RFL-bath or in the double dip method as a pre-dip. Isobond® PC-45 can be used at activation temperatures from as low as 180°C and up to 250°C.

At the same oven temperatures as for caprolactam-blocked MDI, Isobond® PC-45 allows a faster processing speed.

For further information please refer to our technical service.

Material Definition

Appearance: White liquid dispersion

Solids: 44/ -2%

Viscosity (flow time) (25°C): 12 – 40 sec (EN ISO 2431, 4 mm flow cup)

Density: Approx. 1.12 g/cm³

Miscibility: In water and at any ratio

Handling, Storage and Packaging

Isobond® PC-45 is stable for at least one year when stored in sealed original packing at temperatures between 5°C and 30°C without exposure to sunlight. Sensitive to frost. Stir up before using.

Standard pack size is in 1 ton plastic containers; it also can be supplied in 200 kg plastic drums or 22 kg plastic canisters. Under optimal conditions, Isobond® PC-45 has a shelf life of six months or more.

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

Revision: 2023-07-14 / d036



We strive to be accurate in all of our documentation. However, any information or advice is provided by us in good faith, without warranty or unlimited claim of fitness for a specific application. We sell to qualified industrial users only. The onus is on the product's user to research carefully and then to continually test the product and its application procedures within the context of its specific use. Use of our products and data requires diligence and care, and is within the sole responsibility of the user. Kautschuk-Group does not accept any liability for damages incurred. Our general [Terms and Conditions \(/info/toc\)](#) apply.

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/textile/isobond-pc-45>
(<https://kautschuk.com/products/textile/isobond-pc-45>)

This page is also available in: **Deutsch**
(<https://de.kautschuk.com/products/textile/isobond-pc-45>), **Español**
(<https://es.kautschuk.com/products/textile/isobond-pc-45>), **Français**
(<https://fr.kautschuk.com/products/textile/isobond-pc-45>), **简体中文**
(<https://cn.kautschuk.com/products/textile/isobond-pc-45>), **Italiano**
(<https://it.kautschuk.com/products/textile/isobond-pc-45>), **Türkçe**
(<https://tr.kautschuk.com/products/textile/isobond-pc-45>), **日本語**
(<https://jp.kautschuk.com/products/textile/isobond-pc-45>).

© 2001-2024 **Kautschuk Group** · Isochem Limited · 340 Queen's Road,
Central, · Hong Kong, SAR

For inquiries, contact: info@kautschuk.com (<mailto:info@kautschuk.com>)

[Status \(/status\)](#) · [Policies \(/info\)](#) · [Privacy \(/info/privacy\)](#) · [Terms \(/info/toc\)](#) · [Imprint \(/info/imprint\)](#)