

## Isobond<sup>®</sup> 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<sup>®</sup> 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<sup>®</sup> 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<sup>®</sup> PC-45 sets the standard in particle size, stability, and provides with a very wide processing window.

## Application

Isobond<sup>®</sup> 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/cm<sup>3</sup>

**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

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

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