

# Plastopal® H 85 EB LF

**Product description** Plastopal® H 85 EB LF is a butanol etherified urea formaldehyde resin.

**Key benefits**

- Acid curing crosslinker
- Good acid reactivity
- Good chemical resistances
- High gloss
- High solid content
- Good temperature reactivity
- Very low Formaldehyde content

**Chemical nature** Partially butylated urea formaldehyde resin, dissolved in a mixture of n-butanol/ ethanol .

## Properties

**Physical form** Colorless clear viscous liquid

<b>Technical data</b>	Non-volatile fraction 2 h at 125 °C	DIN EN ISO 3251	83 – 88%
(no supply specification)	Viscosity at 23 °C shear rate D = 21 s <sup>-1</sup>	DIN EN ISO 3219 B	3,000– 6,000 mPa·s
	Platin Cobalt Color number	DIN EN ISO 6271	≤ 50 Hazen
	Acid value	DIN EN ISO 2114	≤ 1 mg KOH/g
	Free formaldehyde content	DIN EN ISO 11402	≤ 0.3%

## Application

Plastopal® H 85 EB LF is mainly used for 1K acid curing wooden furniture clear and opaque top coats.

Plastopal® H 85 EB LF is generally recommended as a crosslinker for 1K acid curing top coats.

Plastopal® H 85 EB LF can be used as a crosslinker for 1K stoving coatings.

## Formulation guideline

### Diluent tolerance

- ● alcohols
  - esters
  - glycol ethers
  - glycolether acetates
  - aromatic hydrocarbons
  - white spirit
  - methylethyl ketones
  - turpentine oil
  - water
- ● thinnable
  - ● limited thinnability
  - not thinnable

Binder compatibility ratio 1:1, solids on solids

- ● alkyd resins with drying fatty acids
  - alkyl resins with non-drying fatty acids
  - alkyl resins with synthetic fatty acids
  - acrylic resins
  - Plastopal® BTB, BTM, BTW
  - Plastopal® EBS 400 B, EBS 400 I
  - Plastopal® RH
  - polyvinyl alcohol
  - cellulose nitrate
  - MF resins (Luwipal®)
  - saturated polyester resins
- ● compatible
  - ● limited compatibility
  - incompatible
  - No data

- Epikote<sup>®1</sup> 828
  - Epikote<sup>®1</sup> 872
  - Epikote<sup>®1</sup> 1001
  - Epikote<sup>®1</sup> 1004
  - Epikote<sup>®1</sup> 1007
  - Epikote<sup>®1</sup> 1009
  - epoxy resin esters
  - Palamoll<sup>®</sup> plasticizers
  - other plasticizers
  - Plastigen<sup>®</sup> G
  - aqueous dispersions
- compatible
  - ○ limited compatibility
  - incompatible
  - No data

<sup>1</sup> registered trademark of Hexion Specialty Chemicals, USA

The information above can only serve as a guide.  
The compatibility should be tested for each individual combination.

Plastopal® H 85 EB LF can be used with alkyd resins (preferably short to medium, non-drying or semi-drying oil alkyls) for 1K acid-curing topcoats. The ratio of binder to crosslinker is between 8:2 to 6:4 (solids), depending on the type of alkyd and the intended application.

Clear and opaque pigmented acid curable top coats based on Plastopal® H 85 EB LF have a high gloss and superior appearance.

The low free Formaldehyde content of 0.3% supports free labeling of the ready-made paint. It is recommended to keep the total content of Plastopal® H 85 EB LF (supplied form) less than 30% in the total formulation. In combination with Luwipal® 044 ULF the free Formaldehyde level can be reduced significantly. With the combination Luwipal® 044 the hydrolysis resistance could be improved but can lead to slower curing and the amount acid catalyst needs to be adjusted, to an acceptable potlife.

Plastopal® H 85 EB LF has a low free formaldehyde value and low amounts of solvent, it is especially suitable for use in low-odor 1K acid-curing coatings.

Acid-curable coatings can be formulated by thinning with suitable solvents such as alcohols or glycol ethers. To cure at room temperature, add of ~ 5% (in terms of solid binder) of p-toluenesulfonic acid has proved to be the optimum amount of acid catalyst.

## Storage

According to our experience, Plastopal® H 85 EB has sufficient storage stability at temperatures between 4 °C and 30 °C if kept in tightly sealed containers.

### Safety

When handling this product, please comply with the advice and information given in the safety data sheet and observe protective and workplace hygiene measures adequate for handling chemicals.

### Note

The data contained in this publication are based on our current knowledge and experience. In view of the many factors that may affect processing and application of our product, these data do not relieve processors from carrying out their own investigations and tests; neither do these data imply any guarantee of certain properties, nor the suitability of the product for a specific purpose. Any descriptions, drawings, photographs, data, proportions, weights, etc. given herein may change without prior information and do not constitute the agreed contractual quality of the product. The agreed contractual quality of the product results exclusively from the statements made in the product specification. It is the responsibility of the recipient of our product to ensure that any proprietary rights and existing laws and legislation are observed.

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