

Laromer® EA 8765 R

General

Laromer® EA 8765 R is an aliphatic epoxy acrylate for formulation of radiation curable printing inks and coatings for wood, wood products, paper and plastics.

Key features & benefits

partly water soluble
flexible
highly reactive

Chemical nature

aliphatic epoxy acrylate

Properties

Appearance

low-to medium-viscous liquid

Typical characteristics

(should not be interpreted as specifications)

viscosity at 23°C	0.6~1.2 Pa·s
acid value	≤ 5 mg KOH/g solid
colour (Gradner)	≤ 5
density at 20°C	1.1 g/mL
flash point	> 100°C

Application

solubility, compatibility

Laromer® EA 8765 R is soluble in all solvents common to the coatings industry with the exception of aliphatic solvents. Laromer® EA 8765 R displays low viscosity, good flexibility and high reactivity. Furthermore, it can be diluted with up to 25% water.

For processing, Laromer® EA 8765 R can be diluted with monomers such as hexanediol diacrylate, trimethylolpropane triacrylate or tripropyleneglycol diacrylate as well as with esters, ketones or aromatic hydrocarbons.

Laromer® EA 8765 R can be homogenously mixed with most unsaturated acrylic resins, e. g, other Laromer® acrylic resins.

fields of application

The resin can be used solely or in combination with other unsaturated acrylic resins to formulate printing inks and coatings for wood, wood products, plastics and paper.

Laromer® EA 8765 R displays low viscosity, good flexibility and high reactivity. Furthermore, it can be diluted with up to 25% water and still stays clear.

The resins can be thinned further for processing with low-volatile monomers such as monofunctional, difunctional and trifunctional acrylates or with low-viscous polyether acrylates such as Laromer® PO 8863, Laromer® PO 43 F, Laromer® PO 8967 or Laromer® PO 33 F. Since the monomers are incorporated into the film, they affect the properties of the coating.

Monofunctional acrylates increase the coating's flexibility; difunctional acrylates have little effect on hardness and flexibility while trifunctional acrylates increase hardness.

If sufficient flash-off room is available, inert solvents can also be used, they must, however, be completely removed from the coating before it is exposed to radiation.

A suitable photoinitiator must be used to photocure Laromer® EA 8765 R. The photoinitiator types include, for example, α -hydroxy ketone, benzophenone, acyl phosphine oxide, and blends thereof, for typical coating applications. The amount of photoinitiator varies between 2 – 5% based on Laromer® EA 8765 R as delivered.

Acyl phosphine oxide types (MAPO, MAPO-Liquid and BAPO) of photoinitiators are recommended for film thicknesses of 50 g/cm² to ensure through curing.

Depending on the reactivity desired the quantity to be added varies from 2% to 5%. To increase the reactivity, a tertiary amine such as methyl diethanol amine or an acrylated amine can be added to Laromer® EA 8765 R. Care should be taken to ensure that the amine does not react with the substrate, particularly pale-colored ones.

Storage

Product ought to be kept within sealed unopened containers. Containers should be stored below 35 °C and away from sunlight.

For further detailed application information please contact our Technical Support Department.

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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