BASF The Chemical Company

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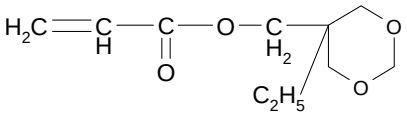
Laromer® LR 8887

trial product

acrylic acid ester as a reactive thinner for radiation-curable coatings and for manufacturing polymers

Nature

trimethylolpropane formal acrylate



Properties

Physical form

low-viscous liquid

Preliminary product specification

water content by K. Fischer method (DIN 51777)	≤	0.05	%
acidity, as acrylic acid (DIN EN ISO 2114, method B)	≤	0.05	%
iodine color number (DIN 6162)	≤	5	
appearance (visual evaluation)	clear		
assay (gas chromatography)	≥	78	%

Other properties

physical form	liquid	
standard stabilization	900–1,100	ppm MEHQ[1]
density at 25C/77F (DIN 51757, method 4.3)	1.1	g/cm³

Solubility, diluent tolerance

Laromer® LR 8887 is soluble in all solvents common to the coatings industry with the exception of aliphatic hydrocarbons.

Compatibility

Laromer® LR 8887 can be homogenously mixed with most unsaturated acrylic resins such as other Laromer® grades.

[1] monomethyl ether of hydroquinone

Storage

Laromer® LR 8887 must be protected from light and heat. The storage temperature should not exceed 30C/86F. Under these conditions, the product can be stored in its sealed original containers for 6 months.

Application

Laromer® LR 8887 is a monofunctional reactive thinner used for the manufacture of UV- and electron-beam-curable coatings for wood, cork and plastics.

Its elasticizing effect makes it suitable for coatings that are applied to flexible substrates. Laromer® LR 8887 can also be used for parquet varnishes because of its good chemical resistance and high toughness.

Cured coatings that contain Laromer LR 8887 have much lower odor levels compared with those containing other acrylic monomers.

Processing

Laromer® LR 8887 must be combined with other acrylic resins, it acts as a reactive thinner.

The properties of the finished coating can be controlled by combining it with suitable acrylic resins, e.g., polyester acrylates, epoxy acrylates or urethane acrylates.

A photo initiator must be added to the combination of binder and Laromer® LR 8887 to permit curing by ultraviolet radiation. Suitable initiators are, Lucirin® TPO, Lucirin® TPO-L, Darocur®[2] 1173, Irgacure®[2] 184, Irgacure®[2] 500, Esacure®[3] KIP 100 F and benzophenone. The proportion to be added depends on the reactivity required and varies between 2 % and 5 %.

To increase the reactivity particularly of thin coats, a tertiary amine such as methyl diethanolamine or a reactive tertiary amine such as Laromer® LR 8956 can be added. With pale substrates in particular, this combination must be carefully tested for interaction of the amine with the substrate.

When using amine-modified binders such as Laromer® PO 84 F or Laromer® PO 77 F, no tertiary amine co-initiator is necessary.

[2] registered trademark of Ciba Specialties Holding, Ltd.
[3] registered trademark of Fratelli Lamberti SpA

Safety

When handling these products, advice and information given in the safety data sheet must be complied with. Further, protective and workplace hygiene measures adequate for handling chemicals must be observed.

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. It is the responsibility of the recipient of our products to ensure that any proprietary rights and existing laws and legislation are observed.

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