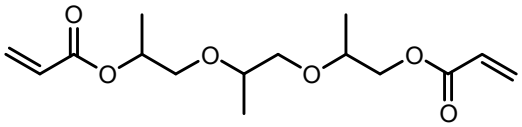
Laromer® TPGDA

Product description

Acrylic acid ester as a reactive thinner for radiation-curable coatings, as a feedstock for syntheses and for manufacturing polymers.

Chemical nature

Tripropyleneglycol diacrylate



Properties

Physical form

Clear liquid

Technical data
(not supply specification)

Water content (Karl Fischer)	DIN EN 13267	≤ 0.05 %
Acidity, as acrylic acid	DIN EN ISO 2114	≤ 0.05 %
Colour value, Platin-Cobalt scale (Hazen/APHA)	DIN EN 6271	≤ 70
Viscosity at 25°C	DIN EN ISO 3119 B	~ 11 mPa.s
Assay (gas chromatography)	BASF method	≥ 80 %
Density at 25 °C		~ 1.04 g/cm³
Refractive index nD at 20 °C		~ 1.450

Compatibility

Laromer® TPGDA can be mixed with most organic solvents.

Application

Laromer® TPGDA contains two polymerizable acrylic groups per molecule, which enable it to form copolymers of, for example, acrylic or methacrylic acids and their salts, amides, esters, vinyl acetate and styrene. Readily entering into addition reactions, it is also an important feedstock for chemical syntheses.

The polymerizable groups allow the product to be used as a crosslinking component, e. g., in radiation-curable coatings, where it also acts as a reactive thinner. During curing, Laromer® TPGDA becomes part of the polymer structure.

Processing

The product can be polymerized by the usual block, solution, suspension and emulsion techniques. Removal of the stabilizer beforehand is generally not necessary. An excess of initiator can counteract its effect if needed.

A suitable photoinitiator must be used to photocure Laromer® TPGDA. 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® TPGDA 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.

Storage

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

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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