

# Laromer<sup>®</sup> PPTTA

**Product description** Acrylic acid ester as a reactive thinner for radiation-curable coatings and Inks.

- Key benefits**
- Very high reactivity
  - Excellent film forming properties
  - Good flexibility
  - Low viscosity

**Chemical nature** Ethoxylated (5.0) pentaerythritoltetra acrylate

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## Properties

**Physical form** Clear, high viscous liquid

<b>Technical data</b>  (no supply specification)	Viscosity at 25 °C, Brookfield, LVF	method derived from DIN EN ISO 2555	~ 180 mPa s
	Colour (APHA)	DIN EN ISO 6271	≤ 100
	Acid value	ISO 660	≤ 0.7 mg KOH/g
	Density at 20 °C		~ 1.15 g/cm <sup>3</sup>
	Refractive index n <sub>D</sub> at 20 °C		~ 1.48
	Functionality (theoretical)		4.0

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## Application

### Fields of application

Laromer® PPTTA is a low viscous tetrafunctional polyether acrylate serving as reactive diluent for oligomers such as epoxy acrylates, polyester acrylates and urethane acrylates. It features high cure speed in all kinds of UV/EB applications and results in hard, but still flexible films due to its fairly low shrinkage compared with other tetrafunctional monomers.

Laromer® PPTTA is a key monomer in all types of low migration formulas for UV/EB overprint varnishes as well as for UV/EB offset and flexo inks due to its high reactivity and high molecular weight. It also provides low odour and excellent solvent resistance.

Typical other application areas of Laromer® PPTTA are as universal thinner for pigmented and non-pigmented UV/EB coatings applied on different substrates.

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

Acyl phosphine oxide types (MAPO, MAPO-Liquid and BAPO) of photoinitiators are recommended for film thicknesses of 50 g/cm<sup>2</sup> to ensure through curing.

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## 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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