

Printing & Packaging

Industrial Coatings

Technical Data Sheet

Laromer® POEA



Product Description

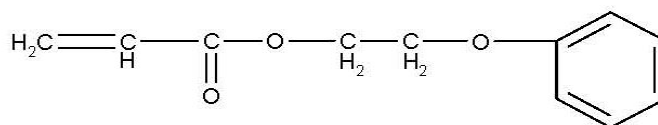
Laromer® POEA is an acrylic acid ester monomer that is used as a reactive diluent in energy curable coatings, inks, overprint varnishes, as a feedstock for synthesis, and for manufacturing polymers. It contains one polymerizable acrylate group per molecule, which enables it to form a copolymer.

Key Features & Benefits

- Good adhesion
- Low viscosity
- Good flexibility
- Low shrinkage

Chemical Structure

Phenoxyethyl acrylate



Properties

Typical Properties

Appearance	clear liquid
Odor	pungent
Assay (gas chromatography)	≥ 90%
Acidity, as acrylic acid (DIN EN ISO 2114, method B)	≤ 0.05%
Water content (K. Fischer, DIN 51777)	≤ 0.05%
Hazen/APHA color number (DIN ISO 6271)	≤ 100
Density at 25°C (DIN 51757, method 4.3)	1.099 g/cm ³
Boiling point (DIN EN ISO 3405)	111°C
Specific heat capacity	1.83 kJ/(kg K)
Solidification point (ISO DIS 3841)	- 36°C
Refracting index n _D at 20°C (DIN EN ISO 489)	1.52

Solubility

of Laromer® POEA in water ~ 40 g/l

Solubility, diluent tolerance

Can be mixed with cyclohexanone, ethanol, methanol, and toluene.

These typical values should not be interpreted as specifications.

Applications

Laromer® POEA contains one polymerizable acrylate group per molecule, which enables 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, Laromer® POEA is also an important feedstock for chemical synthesis.

The polymerizable groups allow the product to be used as a crosslinking component in energy curable coatings, inks, and overprint varnishes where it also acts as a reactive diluent. During curing, Laromer® POEA becomes part of the polymer structure.

Laromer® POEA is recommended for applications such as:

- Printing inks for flexographic, gravure, digital, or silk-screen applications
- Overprint varnishes for commercial, publication, or packaging applications
- Interior/exterior general industrial metal coating applications
- Interior/exterior machine or equipment metal coating applications
- Interior/exterior wood coatings for floor, furniture, or millwork applications

Processing

This 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.

Safety

General

The usual safety precautions when handling chemicals must be observed. These include the measures described in Federal, State, and Local health and safety regulations, thorough ventilation of the workplace, good skin care, and wearing of protective goggles.

Safety Data Sheet

All safety information is provided in the Safety Data Sheet for Laromer® POEA.

Important

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