Printing & Packaging
Industrial Coatings

Technical Data Sheet

Laromer® PO 8967

We create chemistry

Product Description

Laromer® PO 8967 is a modified polyether acrylate oligomer for the formulation of energy curable printing inks and coatings for wood, wood products, paper, and plastic applications.

Key Features & Benefits

- Low viscosity
- Good adhesion
- High surface reactivity
- Monomer free

Chemical Composition

Modified polyether acrylate

Properties

Typical Properties

Appearance	clear, low to medium viscous liquid
Acid value (DIN 53402, ISO 3682)	≤ 5 mg KOH/g
Viscosity at 23°C (ISO 3219 A)	120 – 190 cps
Sheer rate D	250 s^{-1}
Iodine color number (DIN 6162)	≤ 5
Density at 20°C (ISO 2811, DIN 53217)	~1.100 g/cm^3
Flash point (DIN EN ISO 2719)	> 100°C (212°F)

Solubility, diluent tolerance

For the formulation of low viscosity inks or coatings, it can be diluted with monomers such as Laromer® HDDA, Laromer® TMPTA, Laromer® DPGDA, and Laromer® TPGDA or with esters, ketones, and aromatic hydrocarbons.

Compatibility

Can be homogenously mixed with most unsaturated acrylate oligomers such as other Laromer® grades.

These typical values should not be interpreted as specifications.

Applications

Laromer® PO 8967 is lower viscosity version of Laromer® PO 43 F, which shows a very balanced property profile and can be used as a sole binder in UV energy curable formulations for a variety of applications.

Laromer® PO 8967 is recommended for use in energy curable flexo, screen, and offset inks and overprint varnishes. Cured inks and overprint varnishes formulated with Laromer® PO 8967 exhibit resistance to chemicals and provide good surface hardness in combination with acryl phosphine oxide types (MAPO, MAPO-Liquid and BAPO) photoinitiators and Benzophenone.

Processing

Laromer® PO 8967 can be further diluted with low volatile monomers such as mono-functional, di-functional, or tri-functional acrylates. These are incorporated into the film during curing and thus influence its properties. Mono-functional acrylates increase film flexibility; di-functional acrylates have little influence on film hardness and flexibility; tri-functional acrylates increase film hardness.

Laromer® PO 8967 is recommended for applications such as:

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

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With an adequate flash-off zone available, inert solvents may also be used. These must, however, be completely removed from the film prior to energy curing.

A suitable photoinitiator must be used to photocure Laromer® PO 8967. The photoinitiator types include, for example, α-hydroxy ketone, benzophenone, acyl phosphine oxide, and blends thereof, for typical coating applications. Depending on the application method, the selection of different photoinitiators may be required for ink formulations. Acryl phosphine oxide types (MAPO, MAPO-Liquid and BAPO) of photoinitiators are recommended for film thicknesses above 50 g/m^2 to ensure through curing.

For thin ink or coating layers formulated with Laromer® PO 8967, good surface hardness can be achieved by a combination of MAPO, benzophenone, and a reactive tertiary amine in a ratio of 1:2:3. With pale substrates in particular, this combination must be carefully tested for interaction of the amine with the substrate.

Please contact the local BASF technical specialist for further details.

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® PO 8967.

Important

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