

Industrial Coatings

Technical Data Sheet

Laromer[®] PO 8996 (old: Laromer[®] LR 8996)



Product Description	Laromer [®] PO 8996 is an amine modified polyether acrylate resin. It can be used in energy curable resin formulation for coating applications, such as wood, wood products, paper and plastic.
Key Features & Benefits	<ul style="list-style-type: none">- Very high reactivity- Good adhesion- Very low viscosity- Good resistance to chemicals- Monomer free
Chemical Composition	Amine-modified polyether acrylate

Properties

Typical Properties	Appearance	clear, low viscous liquid
	Acid value (DIN EN ISO 2114, method B)	≤ 0.5 mg KOH/g
	Viscosity at 23°C (DIN EN ISO 3219)	~ 90 cps
	Shear rate D	6,700 s ⁻¹
	Iodine color number (DIN 6162)	≤ 2
	Density at 25°C (DIN 51757, method 4.3)	~ 1.10 g/cm ³
	Flash point (DIN EN ISO 2719)	> 100°C
Solubility, diluent tolerance	Soluble in all solvents common to the coatings industry except for aliphatic hydrocarbons. For the formulation of low viscous coatings, it can be thinned with monomers such as Laromer [®] HDDA, Laromer [®] TMPTA, and Laromer [®] TPGDA or with esters, ketones, and aromatic hydrocarbons.	
Compatibility	Can be homogenously mixed with most unsaturated acrylic resins such as other Laromer [®] grades. These typical values should not be interpreted as specifications.	

Applications

Laromer[®] PO 8996 is an amine-modified polyether acrylate containing amino groups. Owing to its high reactivity, it is frequently combined with other energy curable resins to increase the reactivity of the formulation.

Due to its very low viscosity, Laromer[®] PO 8996 is preferred in formulations for high-solids coatings for spray application or vacuum coating. In addition, it can be used as a sole binder in low viscosity, highly reactive coatings.

Laromer[®] PO 8996 is recommended for applications such as:

- Interior/exterior general industrial metal coating applications
- Interior/exterior plastic components coating applications
- Interior/exterior wood coatings for floor, furniture, or millwork applications

Processing

Laromer® PO 8996 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.

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® LR 8996. 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® LR 8996 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.

A tertiary amine as co-initiator is not necessary. This is a significant advantage, particularly in cases where a low odor level after curing is specified or if migration (sweating) of a non-crosslinked tertiary amine constituent to the surface must be avoided.

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 8996.

Important

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