

Industrial Coatings

Technical Data Sheet

Laromer® PE 55 Aqua

(old: Laromer® PE 55 WN)



Product Description	Laromer® PE 55 Aqua is a water-emulsifiable polyester acrylate for the formulation of energy curable coatings for wood, wood products, and plastic applications.
Key Features & Benefits	<ul style="list-style-type: none">- Promotes the natural grain and color of wood- Good elasticity, adhesions, and hardness- Excellent toughness
Chemical Composition	Polyester acrylate

Properties

Typical Properties	Appearance	low – medium viscous liquid
	Non volatile matter (DIN EN ISO 3251)	~ 52%
	pH at 23°C (DIN ISO 976)	~ 6
	Viscosity at 23°C (DIN EN ISO 3219)	~ 650 cps
	Shear rate D	~ 250 s ⁻¹
	Density at 20°C (DIN EN ISO 2811)	~ 1.00 g/cm ³
	Sensitivity to frost	< 0°C
Solubility/Compatibility	Limited solubility/compatibility to alcohols, esters, ketones, glycol ethers, and acrylic monomers such as Laromer® TMPTA or Laromer® TPGDA.	

These typical values should not be interpreted as specifications.

Applications

An outstanding property of Laromer® PE 55 Aqua is its ability to bring out the natural grain and color of wood.

Coating formulations based on Laromer® PE 55 Aqua exhibit good elasticity and adhesion. They are highly reactive. The preferred methods of application are curtain coating, spraying, and rolling.

Laromer® PE 55 Aqua 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

Aqueous binders tend to form serum - water will evaporate in the container and condensate on the surface. The products should therefore be homogenized before use.

When using Laromer® PE 55 Aqua in matt finishes, high proportions of matting agents in pastes may reduce the stability to shear forces.

Coatings should be allowed to thoroughly dry before UV curing to warrant adequate mechanical and chemical resistances. The drying temperature depends on the substrate and the film thickness. For best results, UV curing should occur immediately after physical drying.

A suitable photoinitiator must be used to photocure Laromer® PE 55 Aqua. The photoinitiator types include, for example, α -hydroxy ketone, benzophenone, acyl phosphine oxide, and blends thereof, for typical coating applications. Liquid photoinitiators can be incorporated directly; powder types should be pre-dissolved in a suitable organic solvent, such as ethylene glycol monobutylether (EB). The amount of photoinitiator varies between 1 – 3% based on Laromer® PE 55 Aqua as delivered.

In UV curable coatings, the photoinitiators' volatility should be observed. No tack-free films will have formed after evaporation of the water.

Acyl phosphine oxide types (MAPO, MAPO-Liquid and BAPO) of photoinitiators are recommended for film thicknesses of 50 g/cm² to ensure through curing.

Preparations containing a photoinitiator should be stored in UV-impermeable plastic containers.

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® PE 55 Aqua.

Important

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