## Industrial Coatings

Technical Data Sheet

## Laromer ${ }^{\circledR}$ PE 22 Aqua <br> (old: Laromer ${ }^{\circledR}$ PE 22 WN)

| Product Description | Laromer® PE 22 Aqua is a resin used for aqueous systems, for the formulation of radiationcurable printing inks and coatings for wood, wood products, paper and plastics. |
| :---: | :---: |
| Key Features \& Benefits | - Minimal yellowing <br> - Easy to blend with other photoinitiator |
| Chemical Composition | Water-emulsifiable polyester acrylate |
|  | Properties |
| Typical Properties | Appearance low - medium viscous liquid |
|  | Non volatile matter (DIN EN ISO 3251) $\sim 52 \%$ |
|  | pH at $23^{\circ} \mathrm{C}$ (DIN ISO 976) $\sim 5$ |
|  | Viscosity at $23^{\circ} \mathrm{C}$ (DIN EN ISO 3219) - 500 cps |
|  | (Shear rate D ~ $250 \mathrm{~s}^{-1}$ ) |
|  | Density at $20^{\circ} \mathrm{C}$ (DIN EN ISO 2811) $\quad \sim 1.00 \mathrm{~g} / \mathrm{cm}^{3}$ |
|  | Sensitivity to frost $<0^{\circ} \mathrm{C}$ |
| Solubility/Compatibility | Limited solubility/compatibility to esters, ketones, glycol ethers, and acrylic monomers such as Laromer ${ }^{\circledR}$ TMPTA or Laromer ${ }^{\circledR}$ TPGDA. |
|  | These typical values should not be interpreted as specifications. |

Processing

## Applications

Laromer® PE 22 Aqua is suitable for the following applications: wood, wood products, paper and plastics.

Laromer® PE 22 Aqua has good resistance to chemicals, good hardness, and scratch resistance. Laromer® PE 22 Aqua has preferred methods of application are curtain coating, silk screen printing, spraying and rolling.

An outstanding property of Laromer® UA 8949 Aqua, Laromer® PE 22 Aqua and Laromer® PE 55 Aqua is their ability to bring out the natural grain and color of wood.

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.

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 22 Aqua. The photoinitiator types include, for example, $\alpha$-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 22 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 $50 \mathrm{~g} / \mathrm{cm}^{2}$ 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

Safety Data Sheet

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.

All safety information is provided in the Safety Data Sheet for Laromer® PE 22 Aqua.

## Storage

Protected from light and in tightly sealed containers, Laromer® PE 22 Aqua can be stored for 6 months at these temperature ranges: at $10-30^{\circ} \mathrm{C}\left(50-86^{\circ} \mathrm{F}\right)$.

## Important

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