

# Industrial Coatings

## Technical Data Sheet

### Laromer® UA 9059 Aqua (old: Laromer® UA 9059)



<b>Product Description</b>	Laromer® UA 9059 Aqua is a liquid aliphatic urethane acrylate that is used for the formulation of energy curable coatings for wood, wood products, paper, and plastic applications.
<b>Key Features &amp; Benefits</b>	<ul style="list-style-type: none"><li>- Excellent adhesion on wood</li><li>- Very flexible</li><li>- Excellent coin-test results</li><li>- Excellent dilutability with water</li></ul>
<b>Chemical Composition</b>	Aliphatic urethane acrylate, 70 % dissolved in water

#### Properties

<b>Typical Properties</b>	Appearance	medium – high viscous liquid
	Solids (DIN EN ISO 3251)	~ 72%
	pH at 23°C (DIN ISO 976)	~ 8.0
	Viscosity at 23°C (DIN EN ISO 3219)	~ 11,000 cps
	Shear rate D	~ 100 s <sup>-1</sup>
	Density at 20°C (DIN EN ISO 2811-1)	~ 1.1 g/m <sup>3</sup>
<b>Solubility, diluent tolerance</b>	Soluble in all water-soluble solvents common to the coating industry. Water can be used to adjust the viscosity. At solids of < 30% and at elevated storage temperatures, turbidity may occur.	
<b>Compatibility</b>	Compatible with water-soluble UV curable acrylates such as Laromer® EA 8765 and Laromer® PO 8982. When mixing with UV curable dispersions or emulsions, incompatibilities such as thickening may occur, depending on the mixing ratio. Therefore, compatibility should be checked. For the formulation of tinted coatings, Luconyl® pigment preparations or Basantol® U dyes can be used.	

These typical values should not be interpreted as specifications.

#### Applications

Laromer® UA 9059 Aqua is a water-based aliphatic urethane acrylate for the formulation of energy curable coatings. In addition to good adhesion directly on wood, it can also be used as a hydroprimer on different wood substrates. Excellent coin-test results can be obtained when applying Laromer® UA 9059 Aqua as a hydroprimer on parquet.

Laromer® UA 9059 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

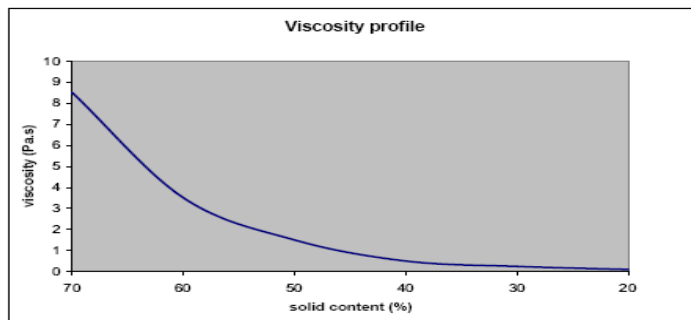
<b>Processing</b>	When using Laromer® UA 9059 Aqua as hydroprimer, it is recommended to adjust the viscosity with water (See Table 1 below) to approximately 1,500 cps and to use a suitable photoinitiator such as $\alpha$ -hydroxy ketone, benzophenone, and blends thereof.
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For coating thicknesses of approximately 10 g/m<sup>2</sup>, a thermal drying step is not necessary. The applied hydroprimer coating can be directly UV cured or over-coated with a 100% UV lacquer. For a good intercoat adhesion of subsequent coating layers, it is recommended to not fully cure the hydroprimer.

At higher coating thicknesses, a thermal curing step is necessary in order to fully remove all water. Insufficient drying may cause a whitening effect in the film after UV curing.

If Laromer® UA 9059 Aqua is used as tinted stains next to using pigment preparations or dyes, a suitable photoinitiator must be used. In order to secure through-hardening, Acryl phosphine oxide types (MAPO, MAPO-Liquid and BAPO) of photoinitiators are recommended.

Table 1. Viscosity Profile



## 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® UA 9059 Aqua.

## Important

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