

# Printing & Packaging

## Industrial Coatings

Technical Data Sheet

# Laromer<sup>®</sup> HDDA



### Product Description

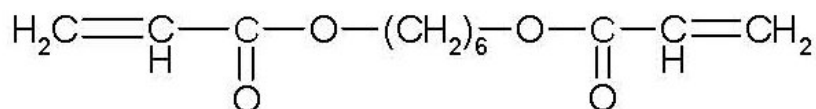
Laromer<sup>®</sup> HDDA is an acrylic acid ester used as a reactive diluent in energy curable coatings, inks, and overprint varnishes, as a feedstock for synthesis, and for manufacturing polymers. It contains two polymerizable acrylate groups per molecule, which enables it to form copolymers.

### Key Features & Benefits

- Good adhesion
- Good flexibility
- Excellent diluent

### Chemical Structure

Hexanediol diacrylate



## Properties

### Typical Properties

Appearance	clear liquid
Odor	ester – like
Assay (gas chromatography)	≥ 90%
Acidity, as acrylic acid (DIN EN ISO 2114, method B)	≤ 0.05%
Water content (K. Fischer, DIN 51777)	≤ 0.05%
Hazen/APHA color number (DIN ISO 6271)	≤ 50
Density at 25°C (DIN 51757, method 4.3)	1.015 g/cm <sup>3</sup>
Boiling point (DIN EN ISO 3405)	107°C (225°F)/0.3 mbar
Specific heat capacity at 30°C	1.88 kJ/ (kg K)
Solidification point (ISO DIS 3841)	8 – 11°C (46 -56°F)
Refracting index n <sub>D</sub> at 20°C (DIN EN ISO 489)	1.457

### Solubility

of Laromer HDDA in water	0.36 g/l
of water in Laromer <sup>®</sup> HDDA	insoluble

### Compatibility

Can be mixed with most organic solvents.

These typical values should not be interpreted as specifications.

## Applications

Laromer<sup>®</sup> HDDA contains two polymerizable acrylate groups per molecule, which enables it to form copolymers of, for example, acrylic or methacrylic acids and their salts, amides, esters, vinyl acetate, and styrene. Readily entering into addition reactions, it is also an important feedstock for chemical synthesis.

The polymerizable groups allow the product to be used as a crosslinking component in energy curable coatings, inks, and overprint varnishes where it also acts as a reactive diluent. During curing, Laromer® HDDA becomes part of the polymer structure.

Laromer® HDDA is recommended for applications such as:

- Pigment dispersions
- Printing inks for flexographic, digital, or silk-screen applications
- Overprint varnishes for commercial or publication applications
- Interior/exterior general industrial metal coating applications
- Interior/exterior wood coatings for floor, furniture, or millwork applications

### **Processing**

Laromer® HDDA can be polymerized by the usual block, solution, suspension, and emulsion techniques. Removal of the stabilizer beforehand is generally not necessary. An excess of initiator can counteract its effect if needed.

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## **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® HDDA.

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