

# Industrial Coatings

## Technical Data Sheet

# Luwipal<sup>®</sup> 072



<b>Product Description</b>	Luwipal <sup>®</sup> 072 is a highly reactive melamine-formaldehyde resin for industrial coating applications.
<b>Key Features &amp; Benefits</b>	<ul style="list-style-type: none"><li>- Promotes the natural grain and color of wood</li><li>- Good elasticity, adhesion, and hardness</li><li>- Excellent toughness and weatherability</li></ul>
<b>Chemical Composition</b>	Melamine-formaldehyde resin dissolved in isobutanol

### Properties

#### Typical Characteristics

Appearance	colorless liquid
Non-volatile matter	73 – 77%
Acid value	≤ 1mg KOH/g
Viscosity at 23°C	4,000 – 7,000 cps
Shear rate D	20.6 s <sup>-1</sup>
Hazen color number	≤ 50
Density	~ 1.2 g/cm <sup>3</sup> , 10 lbs/gal
Free formaldehyde	≤ 1.0%
Organic solvent isobutanol	≤ 20%

#### Solubility, diluent tolerance

Soluble in methanol, ethanol, butanol, ethyl acetate, butyl acetate, 1-methoxy-2-propanol, (2-methoxymethylethoxy) propanol, solvent blend of 85% isobutyl formate + 15% isobutanol; limited solubility in toluene, xylene and water; insoluble in methyl ethyl ketone, mineral spirits, and turpentine oil.

#### Compatibility (1:1, solids on solids)

Compatible with many non-drying alkyds, saturated polyesters, acrylics, nitrocellulose, urea- and melamine-formaldehyde resins, and epoxies.

These typical values should not be interpreted as specifications. Solubility and compatibility should be tested for each individual combination.

### Applications

Luwipal<sup>®</sup> 072 is a highly reactive melamine resin that is particularly compatible with acrylic resins and can be diluted with both water and xylene. It is particularly suited as a crosslinker for water-soluble finishes based on alkyd, acrylic, or saturated polyester resins or polymer dispersions.

Luwipal<sup>®</sup> 072 is recommended for applications such as:

- Interior/exterior general industrial metal coating applications
- Interior/exterior plastic components coating applications
- Automotive OEM applications

#### Processing

The combination of Luwipal<sup>®</sup> 072 with a very reactive alkyd resin often leads to a sudden increase in viscosity. This can be avoided by adding proportionate amounts of glycol ether or glycol ether acetate to the solvent. Sufficient quantities of polar solvents are often present in water-based finishes to act as a stabilizer.

The mixing ratio is from 2:8 – 4:6 based on resin solids. Luwipal® 072 is commonly used in automotive coatings.

The reactivity of coil coating finishes can be modified to increase belt speed. Replacing more than 20% HMMM resin can promote embrittlement and should therefore be limited to 20%.

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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.

### Material Safety Data Sheet

All safety information is provided in the Material Safety Data Sheet for Luwipal® 072.

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