

## Product Data Sheet

### YDNU-65 | High Solid Methylated Urea Formaldehyde Resin

Ydnresin | A Division of YDN Group

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## 1. Product Description

**YDNU-65** is a high solid content, solvent-free **methylated urea formaldehyde resin** designed as a crosslinking agent for hydroxyl-functional polymers in waterborne and solvent-based systems. It enables rapid curing at low temperatures without acid catalysts, making it ideal for eco-friendly, fast-curing coatings and paper finishing.

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## 2. Key Features

-  **High Solid Content** ( $\geq 85\%$ )
  -  **Fast-Curing** – Up to 2× faster than traditional UF resins
  -  **Solvent-Free** – Low VOC and compliant with global environmental standards
  -  **Catalyst-Free Performance** – No acid curing agent required
  -  **Excellent Compatibility** – With alkyds, acrylics, polyesters, epoxies
  -  **Low Free Formaldehyde** ( $\leq 0.5\%$ )
  -  **Water Soluble** – Easy to formulate in aqueous systems
  -  **Economical & Stable** – Long shelf life and cost-effective
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## 3. Typical Applications

- Water-based **wood topcoats** and **clear lacquers**
- Fast-drying **alkyd baking enamels**
- **Paper coating** and surface sizing
- Low-temperature industrial metal finishes

## 4. Technical Specifications

Property	Test Method	Typical Value
Appearance	Visual Inspection	Transparent viscous liquid
Solid Content (105°C, 3 hrs)	ASTM D1259	≥ 85%
Viscosity (30°C)	ASTM D2196	3000–10000 mPa·s
Density (23°C)	ASTM D1475	~1200 kg/m <sup>3</sup>
Flash Point (Closed Cup)	ASTM D93	76°C
Free Formaldehyde Content	Internal Method	≤ 0.5% by weight
Solubility in Water	Visual/Practical Test	Fully Soluble
Solubility in Xylene	Visual/Practical Test	Partially Soluble
Storage Stability	Visual, 23°C sealed drum	≥ 6 months

## 5. Solubility & Compatibility

YDNU-65 blends well with:

- **Alkyd Resins**
- **Acrylic Emulsions**
- **Polyester Polyols**
- **Epoxy Esters**

Note: When using aliphatic hydrocarbon solvents, inclusion of oxidative co-solvents is recommended to maintain clear solution stability.

## 6. Packaging

- 📦 20L Plastic Drum
  - 📦 200L Steel Drum
  - 📦 1000L IBC Tank
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## 7. Storage & Handling

- Store in a **cool, dry place**, away from direct sunlight.
  - Avoid freezing or excessive heat.
  - Use with proper **ventilation and PPE** (gloves, goggles).
  - Shelf life: **6 months** in unopened packaging under ambient conditions.
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## 8. Regulatory Compliance


- 📄 REACH Compliant
  - 📄 RoHS Compliant
  - 📄 Low VOC Formulation
  - 📄 Formaldehyde content <0.5%
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## 9. Contact Information

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