

Technical Data Sheet (TDS)

YDN5130 | Highly Alkyl Etherified Melamine Resin

Ydnresin | A Division of YDN Group

📖 Last Updated: May 2025

Product Description

YDN5130 is a highly alkyl etherified melamine-formaldehyde resin designed for use as a crosslinker in industrial coatings, coil coatings, electrophoretic paints, and metal packaging finishes. Engineered for low free formaldehyde emissions and excellent chemical resistance, it is ideal for applications requiring high film durability, thermal stability, and compliance with global VOC and emission regulations.

This resin is compatible with polyester, acrylic, alkyd, and epoxy systems and offers superior crosslinking performance under medium to high-temperature baking conditions.

Typical Properties

Property	Typical Value	Test Method / Notes
Appearance	Clear to pale yellow liquid	Visual
Solid Content (%)	98–100	DIN EN ISO 3251
Free Formaldehyde (%)	≤ 0.3	ISO 11402
Viscosity (25°C, mPa·s)	80–200	Brookfield LV, Spindle 1, 60 rpm
pH (20% aqueous solution)	7.5–8.5	DIN ISO 976
Solubility	Soluble in alcohols and ketones	-
Specific Gravity (25°C)	~1.20 g/cm³	ASTM D1475



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Property Typical Value Test Method / Notes

Shelf Life 12 months (sealed container) Store at 5–30°C

Application Areas

- Electrophoretic Coatings (E-coats)
- Coil and Sheet Metal Coatings
- Interior/Exterior Can and Drum Linings
- General Industrial Finishes
- Protective Finishes for Appliances and Equipment

Processing Recommendations

Curing Conditions 130–180°C / 10–30 minutes

Recommended Dosage 10–30% based on total binder solids

Compatible Binders Polyester, alkyd, acrylic, epoxy

Application Methods Spray, dip, roller coating, E-coat

Cleaning Use solvent-based systems or hot water before curing

Key Performance Features

- Highly Alkyl Etherified Improved flexibility and stability
- Low Formaldehyde Emission (<0.3%) Safer for regulated environments
- Excellent Chemical & Solvent Resistance Ideal for packaging and industrial use



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- **Durable Gloss & Hardness** Maintains finish integrity under stress
- Good Weatherability & Corrosion Resistance Suitable for outdoor and metal exposure
- **Outstanding Compatibility** Works with a wide range of resin systems

Regulatory Compliance

Standard / Regulation	Status	
REACH (EU)	Compliant	
RoHS (EU)	Compliant	
ISO 9001 / ISO 14001	Certified manufacturing	
Formaldehyde Content	≤ 0.3% (low-emission formulation)	
Food-Contact Safety (on request) Select grades available upon inquiry		

Packaging & Storage

- Standard: 200 kg steel drums / 1000 kg IBC tanks
- Store in a dry, ventilated area at 5-30°C
- Protect from freezing and direct sunlight
- Shelf life: 12 months in sealed original packaging

Contact for Samples, Technical Support or Bulk Orders

Ydnresin | A Division of YDN Group

Address: No. 2088, Jiuliting Avenue, Caoqiao Street, Pinghu City, Zhejiang Province,

China



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Fmail: sales@ydnresin.com

**** Phone / WhatsApp: +86-135-4070-2776 | +86-135-8634-6868

Website: www.ydnresin.com