

CYMEL[®] NF-3041 resin

PRODUCT DESCRIPTION

CYMEL NF 3041 is a formaldehyde-free, partially n-butylated crosslinking agent supplied in n-butanol. It was designed primarily for use in 2 pack ambient cure solvent-borne conversion varnishes for industrial wood. Systems containing CYMEL NF 3041 exhibit superior catalyzed pot life relative to typical urea-based conversion varnishes and require significantly less catalyst to effect cure. The resulting coatings have excellent appearance, early hardness, resistance properties, and hot/cold cycle flexibility.

BENEFITS

- Does not contain formaldehyde
- Does not emit formaldehyde during curing process
- Excellent compatibility with a variety of OH functional resins
- Fast cure response in ambient and heat cure applications
- Extended catalyzed coating stability or pot life

APPLICATION AREAS

- Industrial wood coatings
- Coil primers and back coatings

PHYSICAL PROPERTIES

Property	Range	Method
Appearance	Clear Liquid	Visual
Non-volatile by wt.	62-66%	Foil, 45 min/45°C
Viscosity	300 – 1000 mPa-s	Dynamic Viscosity
Color, APHA	≤ 500	ISO 6271
Density 25°C	8.2 – 8.4 lbs/gal	

SOLUBILITY

Alcohols	Soluble
Esters	Soluble
Ketones	Soluble
Aromatic hydrocarbons	Soluble
Water	Insoluble

COMPATIBILITY

Acrylic resins	Excellent
Alkyd resins	Excellent
Polyester resins	Excellent
Epoxy resins	Excellent
Nitrocellulose	Excellent

BACKBONE POLYMER SELECTION

CYMEL NF 3041 is a very effective crosslinking agent for alkyd, polyester and acrylic polymers containing primary hydroxyl functionality.

CATALYSIS

For ambient or low bake applications, it is recommended to use 2.0% CYCAT[®] 500 based on weight of total binder solids. However, the acidity of other formulation components may affect the reaction rate and should be evaluated in combination with the catalyst.

FORMULATION STABILITY

Catalyzed potlife can be extended by the addition of 10 to 20% primary alcohol on total binder solids. Methanol or ethanol is preferred to ensure early hardness development and sandability. The coatings demonstrate very good flow, gloss, early film hardness, early print resistance and chemical resistance.

STORAGE STABILITY

CYMEL NF 3041 resin has a shelf life of 12 months from the date of manufacture when stored at temperatures between 5°C and 30°C. Although lower temperatures are not detrimental to stability, the viscosity of the product will increase possibly making the resin difficult to pump or pour. Product viscosity can be returned to normal by gentle re-warming, however, care should be taken to avoid excessive localized heating as this can result in an irreversible increase in viscosity.

• Worldwide Contact Info: www.allnex.com •

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