

CYMEL® MI-97-IX resin

PRODUCT DESCRIPTION

CYMEL MI-97-IX resin is a partially iso-butylated melamine crosslinker supplied in a mixture of iso-butanol and xylene. Its fast drying behavior provides films with good early block resistance for stacking of parts and makes CYMEL MI-97-IX resin suitable for fast low temperature curing systems, like wood and paper coatings, providing very good film hardness, adhesion and appearance.

BENEFITS

- Fast reaction speed
- Good block resistance
- Good resistance properties

APPLICATION AREAS

- Acid curing wood coating formulations

PHYSICAL PROPERTIES

Property	Range	Method
Appearance	Clear Liquid	Visual
Non-volatile by wt.	70 ± 2%	Pan, 1 hr/100°C
Viscosity, 23°C	480-760 mPa-s	Dynamic Viscosity
Free formaldehyde	0.4-0.7%	Sulfite Method
Color, APHA	< 15	ISO 6271

SOLUBILITY

Alcohols	Partial
Esters	Complete
Ketones	Complete
Aromatic hydrocarbons	Complete
Aliphatic hydrocarbons	Complete
Water	Insoluble

COMPATIBILITY

Acrylic resins	Medium
Alkyd resins	Excellent
Polyester resins	Medium
Nitrocellulose	Excellent
Epoxy resins	Partial
Cellulose acetate butyrate	Partial

BACKBONE POLYMER SELECTION

CYMEL MI-97-IX resin contains a combination of butoxymethyl, methylol and imino functionalities, making it a very effective crosslinker for backbone polymer resins containing hydroxyl functional groups, such as alkyd, polyester or acrylic resins. CYMEL MI-97-IX resin is very reactive and has a high tendency to self-condense at rather low baking temperatures, providing films with very good hardness, gloss, and resistance properties. Although the optimum level of CYMEL MI-97-IX resin should be determined experimentally, ratios of 25 to 35% based on resin solids are typically most effective.

CATALYSIS

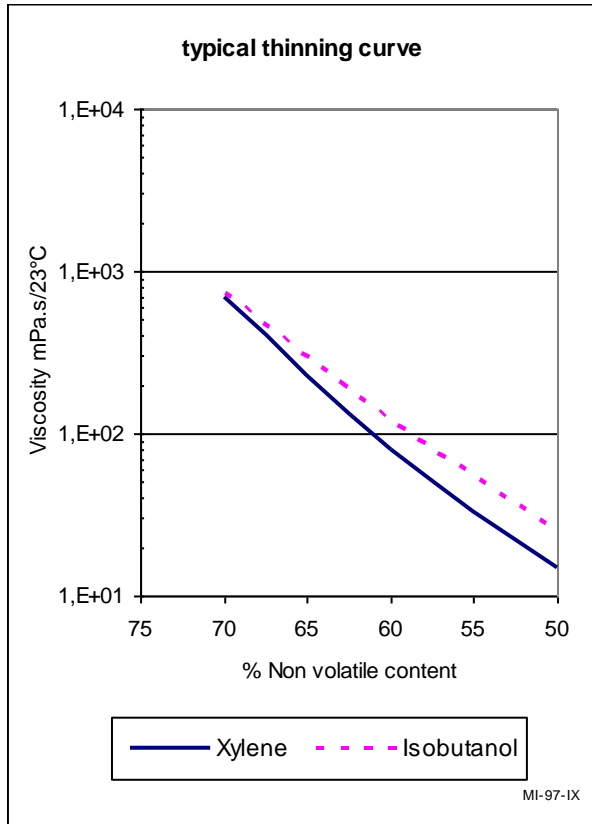
CYMEL MI-97-IX resin responds best to sulfonic acid catalysts, such as CYCAT® 4040 catalyst. For acid curing wood coating formulations, generally 6 to 10% CYCAT 4040 catalyst on total binder of the formulation is sufficient to obtain fast drying behavior at room temperature.

POT LIFE

To extend catalyzed pot life of the formulation, addition of primary alcohols, such as n-butanol and ethanol, is required at concentrations of 10-25% on total resin solids. Faster evaporating alcohols will improve speed of dry.

STORAGE STABILITY

CYMEL MI-97-IX resin has a shelf life of 4 years from date of manufacture when stored at temperatures between 5°C and 30°C. Although low temperatures are not detrimental to stability, the viscosity of the product will increase making the resin more 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 cause an irreversible increase in viscosity.



• Worldwide Contact Info: www.allnex.com •

Disclaimer: Allnex Group companies ("Allnex") decline any liability with respect to the use made by anyone of the information contained herein. The information contained herein represents Allnex's best knowledge thereon without constituting any express or implied guarantee or warranty of any kind (including, but not limited to, regarding the accuracy, the completeness or relevance of the data set out herein). Nothing contained herein shall be construed as conferring any license or right under any patent or other intellectual property rights of Allnex or of any third party. The information relating to the products is given for information purposes only. No guarantee or warranty is provided that the product and/or information is adapted for any specific use, performance or result and that product and/or information do not infringe any Allnex and/or third party intellectual property rights. The user should perform its own tests to determine the suitability for a particular purpose. The final choice of use of a product and/or information as well as the investigation of any possible violation of intellectual property rights of Allnex and/or third parties remains the sole responsibility of the user.

Notice: Trademarks indicated with the ®, ™ or * are registered, unregistered or pending trademarks of Allnex Belgium SA or its directly or indirectly affiliated Allnex Group companies.