CYMEL® 323 resin

DELIVERY FORM

Viscous liquid 80% in isobutanol

APPLICATION PROPERTIES

In solvent borne systems

CYMEL 323 resin is a methylated melamine-formaldehyde crosslinking agent with a medium to high degree of alkylation, a low methylol content and medium to high imino functionality.

CYMEL 323 resin is a very effective crosslinking agent for backbone polymers containing hydroxyl, amide and, to some extent, carboxyl functional groups, such as epoxy, alkyd/polyester or acrylic resins.

CYMEL 323 resin is suitable for a wide range of industrial stoving systems, providing exceptional fast cure response. The baking volatiles from CYMEL 323 resin contain very low levels of formaldehyde even though the tendency to self condensation takes preference over the crosslinking reaction. Compared to other high imino, methylated crosslinking agents, CYMEL 323 resin shows improved film hardness, solvent and humidity resistance.

In water borne systems

CYMEL 323 resin is soluble in water, and has an excellent compatibility with water soluble backbone polymers.

The carboxyl functionality of anionic backbone polymers is sufficiently acidic to catalyse the reaction at relatively low temperature curing schedules. In all water borne systems where speed of cure is very important, CYMEL 323 resin is strongly recommended.

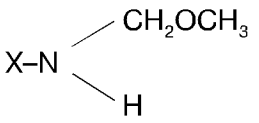
Catalysis

CYMEL 323 resin requires weak acid catalysts for cure at normal baking schedules.

The acidity of the primary film former is usually sufficient to initiate the curing process.

The cure can be additionally catalysed by weak organic or inorganic acids such as CYCAT® 296-9 catalyst, which has proved to be a very effective catalyst for these systems.

Methoxymethyl melamine



Stability

Formulated systems containing CYMEL 323 resin have to be stabilised with primary alcohols, amines or with a combination of these.

For water borne systems a pH value between 7.0-8.5 should be maintained to achieve stability.

PRODUCT SPECIFICATIONS

Property	Range	Method of Analysis
Appearance	Clear liquid	Visual
Colour, APHA	max 70	ISO 6271
Non volatile content	80 ± 2%	Foil, 45 min/45°C
Viscosity, 23°C	2500-7500 mPa.s	ISO 3219/11910

DESCRIPTIVE DATA

Property	Typical Value	Method of Analysis
Density, 23°C	1120 kg/m^3	ISO 2811
Flash point	33°C	ISO 3679
Free formaldehyde	0.3%	ISO 9020

SOLUBILITY

Alcohols	Complete
Ketones	Complete
Esters	Complete
Aromatic hydrocarbons	Partial
Aliphatic hydrocarbons	Not dilutable
Water	Complete

COMPATIBILITY

Alkyd resins	Very good
Polyester resins	Very good
Acrylic resins	Very good
Epoxy resins	Very good

CYTEC

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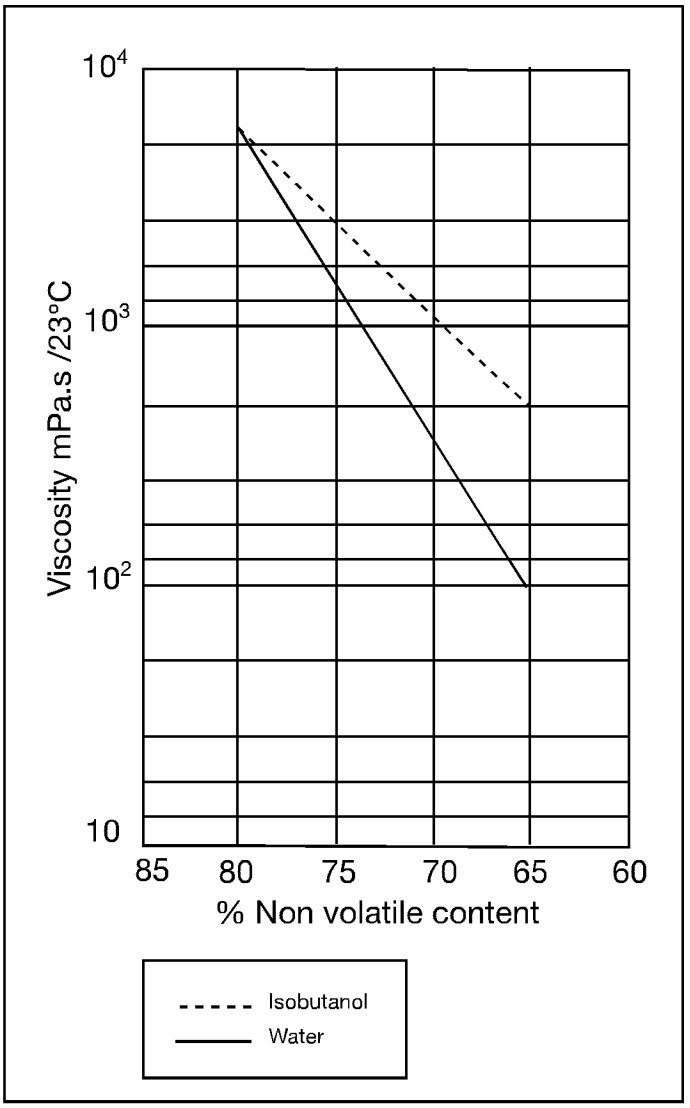
TYPICAL THIN-DOWN CURVE IN ISOBUTANOL/WATER (23°C)



STORAGE STABILITY

Storage stability at ambient temperatures is minimum one year after delivery. Avoid direct sunshine.

IMPORTANT NOTICE

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