

CYREZ[®] 963 Resin Liquid

TYPE

HMMM liquid

FORM OF DELIVERY (f.o.d.)

100 % (clear liquid)

SPECIAL PROPERTIES AND USES

Hexa methoxy methyl melamine (HMMM) as crosslinker for adhesion promoting and reinforcing systems in rubber applications

TYPICAL PROPERTIES

Determined per batch:

Non-Volatile Matter

non volatile matter [%] > 98

Viscosity

Gardner Holdt (25 °C) Y - Z 2

Color Scale (Hazen)

Hazen color value APHA < 70

Not continually determined:

Density (Liquid)

density (20 °C) [g/cm³] 1,192 - 1,202

Dynamic Viscosity

dynamic viscosity (23 °C) [mPa.s] 2600 - 5000

SUGGESTED USES AND PROCESSING

Cyrez 963 finds wide application as adhesion promoter and crosslinker for bonding rubber to organic cord and wire reinforcement materials.

Cyrez 963 (HMMM) offers several advantages over the older hexa methylene tetramine (HEXA or HMT) system. Cyrez resins are relatively nontoxic and present little hazard of dermatitis. An additional advantage is that they are not corrosive to steel cord, polyester cord or metal molds. This property is important when considering adhesion promoters. Cyrez resins are much more suitable as methylene donors, as opposed to HMT which produces ammonia. When used in conjunction with Alnovol[®] PN 760 or resorcinol, Cyrez resin offers the ultimate in rubber adhesion giving optimum bonding strength.

- No skin irritation
- No amine or ammonia by-product
- Better scorch protection than provided by HMT
- No corrosive effects on steel and brass/bronze coated steel

This product can also be used in conjunction with methylene acceptors (Alnovol PN 760 or Resorcinol) in rubber compounds to increase modulus, tensile, stiffness and hardness. Cyrez 963 can be used at the following levels for initial evaluations.

To improve adhesion as well as physical properties Cyrez 963 should be used together with silica in the compound. A suggested range could be 5 to 15 phr.

SUGGESTED LEVELS

Cyrez 963	2 - 5 phr
Alnovol PN 760	1.5 - 3 phr
or	
Resorcinol	1,5 - 3 phr
or	
Resorcinol formaldehyde resin	2 - 4 phr

STORAGE

At temperatures up to 35 °C storage stability packed in original containers amounts to at least 365 days.

HEALTH AND SAFETY INFORMATION

Before using this product, refer to the corresponding Allnex material safety data sheet (MSDS) to obtain additional information.

1.0/04.09.2013

• 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.
© 2013 Allnex Belgium SA. All Rights Reserved

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.