All About Resins

TECHNICAL DATASHEET

Crosslinkers

CYREZ® 964 LF Resin Powder Concentrate

TYP

HMMM powder

FORM OF DELIVERY (f.o.d.)

65 % active on precipitated silica

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:		
Ash content		
Microwave - 800 °C	[%]	31 - 35
Water content		
Karl Fischer	[%]	<= 4
Particle size		
Wet sieve test through 80 mesh	[%]	> 99,7

SUGGESTED USES AND PROCESSING

Cyrez 964 LF (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
- Disperses readily
- Low dust level
- Good flowing properties

Cyrez 964 LF finds wide application as a methylene donor in the "HRH" dry rubber adhesion systems for bonding rubber to organic cord and wire reinforcement materials.
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 964 LF can be used at the following levels for initial evaluations.

To improve adhesion as well as physical properties Cyrez 964 LF should be used together with silica in the compound. A suggested range could be 5 to 15 phr.

SUGGESTED LEVELS

Cyrez 964 LF	3 - 7 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 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.

4.0/17.07.2013 (replaces all previous versions)