INEOS Melamines

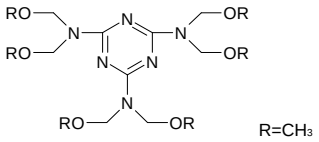
Technical Data Sheet

Resimene® 3520 S-65

CHARACTERISTICS

Hexamethoxymethyl-melamine resin, absorbed on silica based carrier

TYPICAL STRUCTURE



FORM OF DELIVERY

65% active resin as free flowing powder

FIELDS OF APPLICATION

Crosslinker for resorcinol and phenolic novolac resin types for adhesion promoting or reinforcing compounds in rubber applications

SPECIFICATION

Property Determined per batch		
Appearance (Test Method 001)	Passes	White to tan free flowing powder
Ash Residue at 550 °C/2hrs. (Test Method 003)	%	29.5 – 36.5
Moisture (Test Method 002)	%	3 max.
Fineness % retained on 80 mesh (Test Method 025)	%	0.10 max.
Free Formaldehyde (Test Method DIN ISO 11402 / Calculated)	%	< 0.10
Useful Information Not regularly determined		
Density (At 25 °C)	g/ml	1.4-1.5

TECHNICAL INFORMATION

Resimene 3520 S-65 is a hexamethoxymethyl melamine (HMMM) type resin used as a crosslinking agent for resorcinol or novolak resins and as an adhesion promoter for rubber compounds to steel cord, textiles and other reinforcing materials. This is a 65% active resin, absorbed on a silica based carrier, to provide for a free flowing powder.

Resimene 3520 S-65 is used in combination with resorcinol or a novolak resin for increasing compound hardness or for promotion of adhesion between rubber and reinforcing cord or fabrics. Resimene 3520 S-65 is suggested as a replacement for hexamethylene-tetramine because of its lower toxicity, absence of amine or ammoniacal by-products and minimal effect on scorch time.

Resimene 3520 S-65 is recommended to bond treated cellulose fibers to the rubber matrix. It is non-staining and non-discoloring when used on its own. When used in combination with resorcinol or resorcinol based resins, pink discoloration occurs, which becomes brown on exposure to UV light. However, the compound remains non-staining.

APPLICATION & PROCESSING

Resimene 3520 S-65 is normally used at 1.5 to 4.5 phr (active HMMM) in conjunction with 0.5 to 3.0 phr resorcinol in most elastomers to promote adhesion. It is effective with brass plated steel cord, polyester, rayon, nylon and glass fibers in tire, belting and industrial product applications. Adhesion properties can be enhanced with 5.0 to 10.0 phr silica. For hardness increase levels of resorcinol or Novolak resin can be much higher than those used for adhesion. When Resimene 3520 S-65 is used to bond treated cellulose fibers into the rubber matrix, it is usually added at about 1.5 phr (active HMMM) for each 20 to 30 phr of treated cellulose fiber. Resimene 3520 S-65 is normally added with the curatives in the final mixing stage. In the presence of resorcinol or novolak resin, the mix temperature should not exceed 100°C. Vulcanization should be taken to maximum modulus to achieve maximum adhesion or hardness.

STORAGE STABILITY:

At a temperature of 25°C the storage stability of Resimene 3520 S-65 packed in original containers amounts to at least 24 months.

RESIMENE
Amino Crosslinker Resins for Surface Coatings

INEOS Melamines

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