



allnex ALNOVOL® Performance Resins Resins for More Eco-Friendly Rubber & Tire Systems

Product	<ul style="list-style-type: none"> • ALNOVOL® PN 760 • Resorcinol free resin for rubber steel and textile cord adhesion 	<ul style="list-style-type: none"> • ALNOVOL® UF 410 RPC • Effective oil replacement resin for rubber processing • Available on silica as carrier
Overview	<ul style="list-style-type: none"> • Modified phenol novalac used in rubber compounding as an adhesion promoter to steel and textile cords • More environmentally friendly alternative to resorcinol or resorcinol-based resins with similar or improved performance properties 	<ul style="list-style-type: none"> • Solvent-free carbamic resin combining properties of a processing add & reinforcer • Reduces compound viscosity, improves hardness and textile cord adhesion • Processing oil replacement in Apex, Bead and Textile cord compounds while still providing favorable processing characteristics
Value Proposition	<ul style="list-style-type: none"> • Improved adhesion & aging performance • Resorcinol-free system • Low vapor and odor during rubber processing due to low free monomer content • Improves scorch and green compound aging properties 	<ul style="list-style-type: none"> • Processing oil replacement providing new opportunities in rubber compounding • Delivers hardness & modulus by keeping Mooney and Elongation at break stable • Compatible with most rubbers • Organic solvent-free, fast, heat resistant and stable against hydrolysis

- Resins part of Allnex's portfolio of products developed specifically for the rubber industry
- Additional technical literature & samples are available upon request evaluations

Allnex Tire Resins

Key technologies

Resins designed to meet needs of the tire industry

- ALNOVOL Phenolic Resins
- CYREZ Amino (HMMM) Crosslinkers

Provide rubber processing advantages with respect to reinforcement, hardening and adhesion promotion

Portfolio focus on providing system cost and environmental performance advantages

Product Name	Reinforcement	Cord Adhesion Promoter	HMMM Hardener
ALNOVOL PN 160	X		
ALNOVOL PN 320	X		
ALNOVOL PN 760		X	
ALNOVOL VPN 1132	X		
CYREZ 963E/ 963 LIQUID RESIN / 963L		X	X
CYREZ 964 LF/964 RPC		X	X
CYREZ CRA-200 CRA-200S		X	X
ALNOVOL UF 410	X	X	