APPLICATION BRIEF

ATHLOS™ SR1200 CARBON NANOSTRUCTURES IN FLUOROELASTOMER (FKM) AUTOMOTIVE FUEL HOSES

APPLICATION	Inner liner for FKM automotive fuel hose
CHALLENGE	Formulations developed with conductive carbon blacks (CB) to meet OEM conductivity specifications show high viscosity and difficult processability; the required conductivity levels cannot be reached using typical CB for FKM compounds such as MT-N990 CB
ADVANTAGES	Enables an increase in compound conductivity with minimum impact on viscosity
	Enables broader formulation flexibility in rubber conductive compounds

PRODUCT INFORMATION

Carbon nanostructures (CNS) are a unique network of crosslinked carbon nanotubes produced using a proprietary roll-to-roll chemical vapor deposition (CVD) process. CNS enable a superior balance of conductivity, mechanical strength and processability.

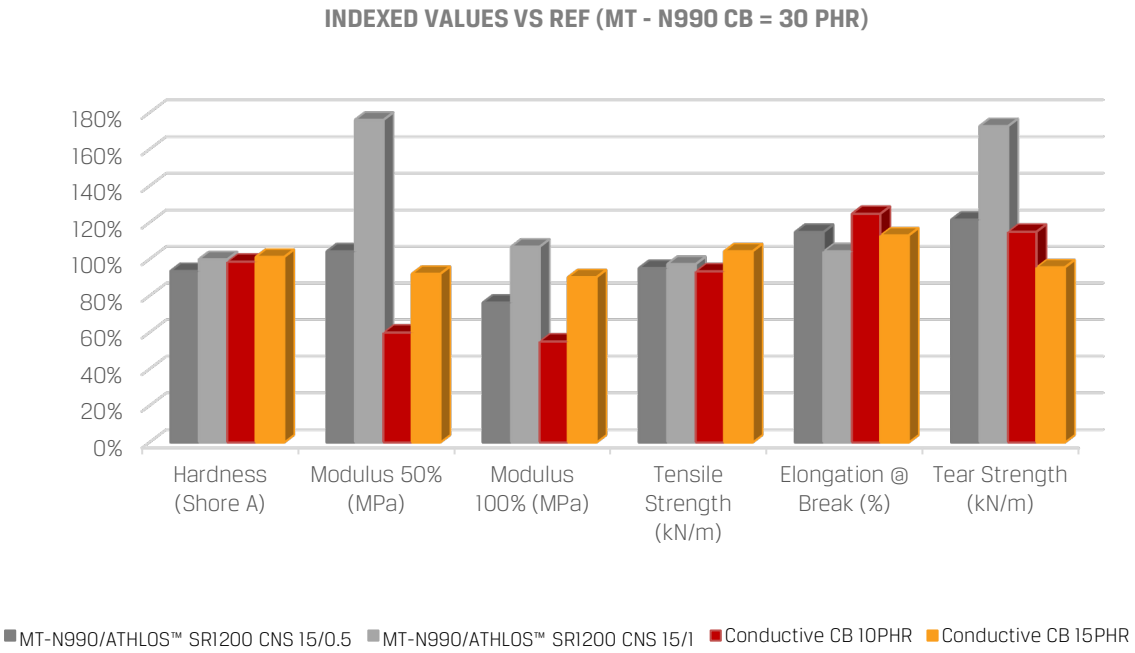
PERFORMANCE FEATURES

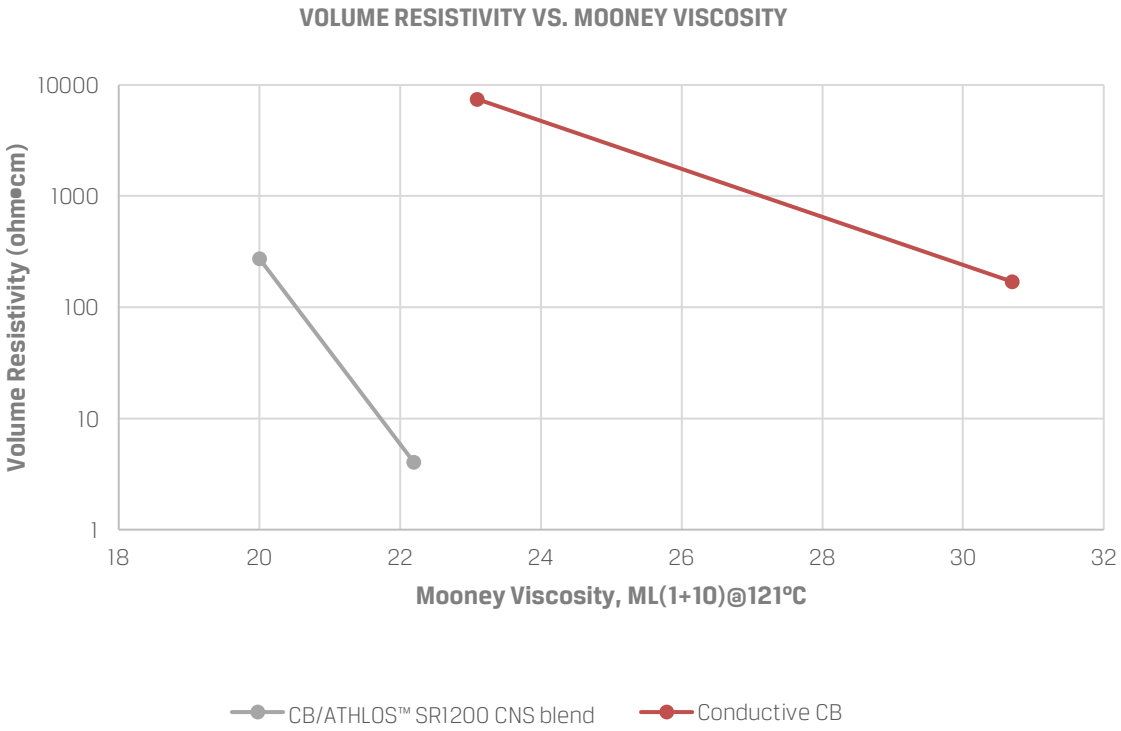
- conductivity
- mechanical strength
- processability
- flexibility

PERFORMANCE OF ATHLOS™ SR1200 CNS IN FKM MODEL FORMULATION (LOW VISCOSITY, 70% FLUORINE) *

Compound#	1	2	3	4	5
MT - N990 CB	30	15	15		
CONDUCTIVE CB				10	15
ATHLOS™ SR1200 CNS		0.5	1		
Mooney Viscosity (1+10) @121˚C	23.7	20	22.2	23.1	30.7
Resistivity (ohm-cm) – ASTM D990	Too high	274	4	7444	170

*Peroxide Cured





For more information, please contact your Cabot representative at cabotcorp.com/contact