

Tecnoflon® FOR 501HS

Cure Incorporated Copolymer

Tecnoflon® FOR 501HS is a low viscosity cure incorporated copolymer, based on our breakthrough technology on bisphenol curable fluoroelastomers. Tecnoflon® FOR 501HS can be compounded to meet all the major fluoroelastomer specifications with only a 1 hour post cure and without using Calcium Hydroxide. Tecnoflon® FOR 501HS is well suited for moulded items with complicated shapes which require a very good hot tear resistance for part removal.

Some of the basic properties of Tecnoflon® FOR 501HS are:

- Low post cure time of 1 hour
- Lower post cure temperatures
- Curable without Calcium Hydroxide
- Excellent mould release
- Lack of mould fouling
- Lower compound viscosity
- Good scorch safety
- Fast cure rate

Basic characteristics of the raw polymer are as follows

Property	Typical Value	Unit	Test Method
ML (1+10') at 121 °C	23	MU	ASTM D1646
Fluorine content	66	%	Solvay Internal Method – NMR
Specific gravity	1.81	g/cm ³	ASTM D792
Colour	Off white		
Packaging/Form	Slabs		
Solubility	Ketones and esters		

Tecnoflon® FOR 501HS can be used for injection and transfer moulding of O-rings, gaskets, and seals. Tecnoflon® FOR 501HS can be mixed using typical fluoroelastomers compounding ingredients and mixing can be accomplished with two roll mills or internal mixers.

Tecnoflon® FOR 501HS can be extruded into hoses or profiles and can be calendered to make sheet stocks or belting. Finished goods can be produced by a variety of rubber processing methods.

Handling and safety

Normal care and precautions should be taken to avoid skin contact, eye contact and breathing of fumes. Smoking is prohibited in working areas. Wash hands before eating or smoking. For complete health and safety information, please refer to the material safety data sheet.

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Typical properties

Test Compound	Typical Value	Unit	Test Method
Tecnoflon® FOR 501HS	100	phr	
MgO-DE	7	phr	
N-990 MT Carbon Black	30	phr	

Property	Typical Value	Unit	Test Method
Mooney Scorch MS 135 °C			ASTM D1646
MV	21	MU	
t ₁₅	40	min	
MDR 6 min at 177 °C arc 0.5°			ASTM D6601
Minimum torque	0.9	lb·in	
Maximum torque	9.4	lb·in	
t _{s2}	2.1	min	
t' ₅₀	2.8	min	
t' ₉₀	4.3	min	
Post cure: 1 h at 250 °C			
100% Modulus	3.4	MPa	ASTM D412C
Tensile strength	15.0	MPa	
Elongation at break	270	%	
Hardness	65	ShoreA	ASTM D2240
Compression set			ASTM D395 method B
25% deformation, 70 h at 200 °C			
O-ring #214	17	%	

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