Tecnoflon® FOR 210

Cure Incorporated Copolymer

Tecnoflon® FOR 210 is a very low viscosity cure incorporated fluoroelastomer copolymer. Tecnoflon® FOR 210 is mainly intended for blending with other polymers of the Tecnoflon® family to achieve the desired viscosity. Tecnoflon® FOR 210 was developed with a new curing system that improves the physical properties of the finished product. Processing characteristics such as flow and scorch safety are also enhanced. Tecnoflon® FOR 210 is well suited for applications were superior flow, mold release and excellent compression set are required.

Some of the basic properties of Tecnoflon® FOR 210 are:

- Excellent scorch safety
- Superior mold flow
- Very good mold release
- Lack of mold fouling
- Low compression set
- Good extrusion behavior

Tecnoflon® FOR 210 can be used for injection and transfer moulding of O-rings, gaskets, and seals. Tecnoflon® FOR 210 can be mixed using typical fluoroelastomers compounding ingredients and mixing can be accomplished with two roll mills or internal mixers.

Tecnoflon® FOR 210 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 safety data sheet.

Basic characteristics of the raw polymer are as follows

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

Typical properties

Test Compound	Typical Value	Unit	Test Method
Tecnoflon® FOR 210	100	phr	
MgO – DE	3	phr	
$Ca(OH)_2$	6	phr	
N-990 MT Carbon Black	30	phr	

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Property	Typical Value	Unit	Test Method
Mooney viscosity ML (1+10') at 121 °C	18	MU	ASTM D1646
Mooney Scorch MS 135 °C			ASTM D1646
MV	8	MU	
t_{15}	58	min	
ODR 12 min at 177 °C arc 3 °			ASTM D2084
Minimum torque	3	lb·in	
Maximum torque	92	lb·in	
t_{s2}	4.5	min	
t'_{90}	6.0	min	
MDR 6 min at 177 °C arc 0.5 °			ASTM D6601
Minimum torque	0.3	lb·in	
Maximum torque	20	lb·in	
t_{s2}	2.3	min	
t'_{50}	2.5	min	
t'_{90}	4.0	min	
Press cure: 10 min at 170 °C, post cure: (8+16) h at 250 °C			
100 % Modulus	7.1	MPa	ASTM D412C
Tensile strength	17.8	MPa	
Elongation at break	187	%	
Hardness	74	ShoreA	ASTM D2240
Compression set 25 % deformation, 70 h at 200 °C			ASTM D395 method B
O-ring #214	22	%	
6 mm buttons	14	%	
Heat resistance, 70 h at 275 °C			ASTM D573
Δ Tensile strength	−25	%	
Δ Elongation at break	15	%	
Δ Hardness	0	ShoreA	

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