

Tecnoflon® FOR 7380K

Cure Incorporated Terpolymer

Tecnoflon® FOR 7380K is a medium viscosity cure incorporated fluoroelastomer terpolymer (FKM) with 68 % fluorine content. Tecnoflon® FOR 7380K is designed to improve bonding in any application requiring adhesion to metal. In shaft seals or valve stem seals production, Tecnoflon® FOR 7380K greatly reduces the reject rate due to adhesion and molding problems. Tecnoflon® FOR 7380K contains a new curing system and proprietary special processing aid, providing superior processability for fast cycles and scorch safety.

Some of the basic properties of Tecnoflon® FOR 7380K are:

- Very good flow
- Superior rubber-to-metal bond
- Lack of mould fouling
- Excellent hot tear resistance

Tecnoflon® FOR 7380K can be used for compression, injection and transfer molding of shaft seals, valve stem seals, O-rings, gaskets and seals. Tecnoflon® FOR 7380K can be combined with the cure system and other typical fluoroelastomer compounding ingredients. Mixing can be accomplished with two roll mills or internal mixers.

Tecnoflon® FOR 7380K can be extruded into hoses or profiles and can be calendered to make sheet stocks or belting.

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.

Basic characteristics of the raw polymer are as follows

Property	Typical Value	Unit	Test Method
ML (1+10') at 121 °C	31	MU	ASTM D1646
Fluorine content	68	%	Solvay Internal Method – NMR
Specific gravity	1.86	g/cm ³	ASTM D792
Colour	Off white		
Packaging / Form	Slabs		
Solubility	Ketones and esters		

Typical properties

Test Compound	Typical Value	Unit	Test Method
Tecnoflon® FOR 7380K	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	65	MU	ASTM D1646
Mooney Scorch MS 135 °C			ASTM D1646
MV	27	MU	
t ₁₅	33	min	
ODR 12 min at 177 °C arc 3°			ASTM D2084
Minimum torque	10	lb·in	
Maximum torque	75	lb·in	
t _{s2}	2.3	min	
t' ₉₀	4.1	min	
MDR 6 min at 177 °C arc 0.5°			ASTM D6601
Minimum torque	1.05	lb·in	
Maximum torque	18.6	lb·in	
t _{s2}	1.9	min	
t' ₅₀	2.3	min	
t' ₉₀	3.4	min	
Press cure: 10 min at 170 °C, post cure: (8+16) h at 250 °C			
100 % Modulus	5.1	MPa	ASTM D412C
Tensile strength	16.0	MPa	
Elongation at break	247	%	
Hardness	75	ShoreA	ASTM D2240
Compression set			ASTM D395
25 % deformation, 70 h at 200 °C			method B
O-ring #214	30	%	
6 mm buttons	24	%	

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