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Tecnoflon® FOR 5361

Low Temperature Bisphenol Curable Terpolymer

Tecnoflon® FOR 5361 is a low viscosity cure incorporated fluoroelastomer terpolymer designed to provide improved low temperature characteristics. Tecnoflon® FOR 5361 exhibits the same excellent heat and chemical resistance expected from Tecnoflon® copolymers.

Some of the basic properties of Tecnoflon® FOR 5361 are:

- Improved low temperature performance
- Good chemical resistance
- Good heat resistance
- Very low compression set
- Excellent mould release
- Lack of mould fouling
- Superior mould flow

Tecnoflon® FOR 5361 can be used for injection, compression and transfer molding of O-rings, diaphragms, gaskets, seals, moulded shapes or other items requiring improved low temperature performance. Tecnoflon® FOR 5361 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 5361 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.

Basic characteristics of the raw polymer are as follows

Property	Typical Value	Unit	Test Method
ML (1+10') at 121 °C	21	MU	ASTM D1646
Fluorine content	65.5	%	Solvay Internal Method – NMR
Specific gravity	1.81	g/cm^3	ASTM D792
Colour	Off white		
Packaging / Form	Slabs		
Solubility	Ketones and esters		

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Typical properties

Test Compound	Typical Value	Unit	Test Method
Tecnoflon® FOR 5361	100	phr	
MgO–DE	3	phr	
$Ca(OH)_2$	6	phr	
N-990 MT Carbon Black	30	phr	

Property	Typical Value	Unit	Test Method
Mooney viscosity ML (1+10') at 121 °C	45	MU	ASTM D1646
Mooney Scorch MS 135 °C			ASTM D1646
MV	19	MU	
t_{15}	38	min	
ODR 12 min at 177 °C arc 3 °			ASTM D2084
Minimum torque	7	lb·in	
Maximum torque	113	lb·in	
t_{s2}	2.6	min	
t'_{90}	3.5	min	
MDR 6 min at 177 °C arc 0.5 °			ASTM D6601
Minimum torque	0.85	lb·in	
Maximum torque	21.9	lb·in	
t_{s2}	1.2	min	
t'_{50}	1.4	min	
t'_{90}	2.1	min	

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Property	Typical Value	Unit	Test Method
Press cure: 10 min at 170 °C			
100 % Modulus	5.7	MPa	ASTM D412C
Tensile strength	12.5	MPa	
Elongation at break	205	%	
Hardness	72	ShoreA	ASTM D2240
Post cure: (8+16) h at 250 °C			
100 % Modulus	7.8	MPa	ASTM D412C
Tensile strength	17.8	MPa	
Elongation at break	175	%	
Hardness	74	ShoreA	ASTM D2240
Heat resistance, 70 h at 275 °C			ASTM D573
Δ Tensile strength	−25	%	
Δ Elongation at break	20	%	
Δ Hardness	−4	ShoreA	
Compression set 25 % deformation, 70 h at 200 °C			ASTM D395 method B
O-ring #214	17	%	
Temperature retraction			ASTM D1329
TR_{10}	−19	°C	
TR_{30}	−14	°C	
TR_{50}	−11	°C	

www.solvay.com

SpecialtyPolymers.EMEA@solvay.com | Europe, Middle East and Africa

SpecialtyPolymers.Americas@solvay.com | Americas

SpecialtyPolymers.Asia@solvay.com | Asia Pacific

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