SOLVAY
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Tecnoflon® FOR 421/U

Cure Incorporated Copolymer

Tecnoflon® FOR 421/U is a low viscosity cure incorporated fluoroelastomer copolymer. This grade is well suited for applications where superior flow, mold release, and excellent compression set are required. Tecnoflon® FOR 421/U can be compounded to meet the major fluoroelastomer specifications.

Some of the basic properties of Tecnoflon® FOR 421/U are:

- Very fast cure rate
- Very good scorch safety
- Superior mold flow
- Excellent mold release
- Lack of mold fouling
- Excellent compression set
- Good extrusion

Tecnoflon® FOR 421/U can be used for injection and transfer moulding of O-rings, gaskets, and seals. Tecnoflon® FOR 421/U can be mixed using typical fluoroelastomers compounding ingredients and mixing can be accomplished with two roll mills or internal mixers.

Tecnoflon® FOR 421/U 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	24	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		

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Typical properties

Test Compound	Typical Value	Unit	Test Method
Tecnoflon® FOR 421/U	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	50	MU	ASTM D1646
Mooney Scorch MS 135 °C			ASTM D1646
MV	33	MU	
t_{15}	27	min	
MDR 6 min at 177 °C arc 0.5 °			ASTM D2084
Minimum torque	1.0	lb·in	
Maximum torque	24.7	lb·in	
t_{s2}	1.5	min	
t'_{50}	1.8	min	
t'_{90}	2.8	min	
Press cure: 10 min at 170 °C, post cure: (8+16) h at 250 °C			
100 % Modulus	7.6	MPa	ASTM D412C
Tensile strength	17.1	MPa	
Elongation at break	181	%	
Hardness	76	ShoreA	ASTM D2240
Compression set 25 % deformation, 70 h at 200 °C			ASTM D395 method B
O-ring #214	13	%	
6 mm buttons	11	%	

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