

# Tecnoflon® FOR 539

## Cure Incorporated Copolymer

Tecnoflon® FOR 539 is a low viscosity cure incorporated fluoroelastomer copolymer. This grade is especially suited for injection molding of O-rings and sealing components which must meet demanding specifications. Tecnoflon® FOR 539 contains a proprietary cure system and a special molecular weight distribution providing superior processability. It has been particularly designed to offer improved characteristics such as flow, mold release, scorch safety, no fouling and faster cycles at a wide range of molding temperatures.

Some of the basic properties of Tecnoflon® FOR 539 are:

- Outstanding flow ability
- Low viscosity
- Improved scorch safety
- No mould fouling

Tecnoflon® FOR 539 can be used for injection and transfer moulding of O-rings, gaskets, and seals. Tecnoflon® FOR 539 can be mixed using typical fluoroelastomers compounding ingredients and mixing can be accomplished with two roll mills or internal mixers.

Tecnoflon® FOR 539 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	20	MU	ASTM D1646
Fluorine content	66	%	Solvay Internal Method – NMR
Specific gravity	1.81	g/cm <sup>3</sup>	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
<b>Tecnoflon® FOR 539</b>	100	phr	
MgO-DE	3	phr	
Ca(OH) <sub>2</sub>	6	phr	
N-990 MT Carbon Black	30	phr	

Property	Typical Value	Unit	Test Method
Mooney viscosity ML (1+10') at 121 °C	40	MU	ASTM D1646
<b>Mooney Scorch MS 135 °C</b>			ASTM D1646
MV	16	MU	
t <sub>15</sub>	50.6	min	
<b>MDR 6 min at 177 °C arc 0.5 °</b>			ASTM D6601
Minimum torque	0.7	lb·in	
Maximum torque	24.0	lb·in	
t <sub>s2</sub>	1.8	min	
t' <sub>50</sub>	2.1	min	
t' <sub>90</sub>	3.0	min	
<b>Post cure: (8+16) h at 250 °C</b>			
100 % Modulus	6.5	MPa	ASTM D412C
Tensile strength	16.5	MPa	
Elongation at break	188	%	
Hardness	76	ShoreA	ASTM D2240
<b>Compression set</b>			ASTM D395 method B
25 % deformation, 70 h at 200 °C			
O-ring #214	18	%	

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