

# Tecnoflon® FOR 9381

## Cure Incorporated Terpolymer

Tecnoflon® FOR 9381 is a medium-viscosity, cure-incorporated fluoroelastomer terpolymer (FKM) with 68.5% fluorine content. Tecnoflon® FOR 9381 is well-suited for all applications requiring better chemical resistance and/or long term heat resistance as compared to fluoroelastomer copolymers. Tecnoflon® FOR 9381 contains proprietary cure system and special process aid, providing superior processability for fast cycles and scorch safety.

Some of the basic properties of Tecnoflon® FOR 9381 are:

- Very good processability
- Excellent chemical resistance
- Low compression rate
- Good heat resistance

Tecnoflon® FOR 9381 can be used for compression, injection and transfer-molding of shaft seals, valve stem seals, gaskets, or any item requiring excellent chemical resistance.

Tecnoflon® FOR 9381 can be combined with both the cure system and other typical fluoroelastomer compounding ingredients. Mixing can be accomplished with two roll mills or internal mixers.

Tecnoflon® FOR 9381 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 any breathing in 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.

### The basic characteristics of the raw polymer are as follows

Property	Typical Value	Unit	Test Method
ML (1+10') at 121 °C	50	MU	ASTM D1646
Fluorine content	68.5	%	Solvay Internal Method – NMR
Specific gravity	1.88	g/cm <sup>3</sup>	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
<b>Tecnoflon® FOR 9381</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	99	MU	ASTM D1646
<b>Mooney Scorch MS 135 °C</b>			ASTM D1646
MV	46	MU	
t <sub>15</sub>	20	min	
<b>ODR 12 min at 177 °C arc 3 °</b>			ASTM D6601
Minimum torque	18.5	lb · in	
Maximum torque	85	lb · in	
t <sub>s2</sub>	2.5	min	
t' <sub>90</sub>	4.2	min	
<b>MDR 6 min at 177 °C arc 0.5 °</b>			ASTM D6601
Minimum torque	2.2	lb · in	
Maximum torque	21.0	lb · in	
t <sub>s2</sub>	1.7	min	
t' <sub>50</sub>	2.0	min	
t' <sub>90</sub>	2.8	min	
<b>Press cure: 10 min at 170 °C, post cure: (8+16) h at 250 °C</b>			
100 % Modulus	5.2	MPa	ASTM D412C
Tensile strength	17.0	MPa	
Elongation at break	255	%	
Hardness	78	ShoreA	ASTM D2240
<b>Compression set, 25 % deformation, 70 h at 200 °C</b>			ASTM D395 method B
O-ring #214	30	%	
<b>Temperature Retraction</b>			
TR <sub>10</sub>	-13	°C	

[www.solvay.com](http://www.solvay.com)

[SpecialtyPolymers.EMEA@solvay.com](mailto:SpecialtyPolymers.EMEA@solvay.com) | Europe, Middle East and Africa

[SpecialtyPolymers.Americas@solvay.com](mailto:SpecialtyPolymers.Americas@solvay.com) | Americas

[SpecialtyPolymers.Asia@solvay.com](mailto:SpecialtyPolymers.Asia@solvay.com) | Asia Pacific



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