

## Tecnoflon® FOR 4353 (FDA Compliant)

### Cure Incorporated Copolymer

Tecnoflon® FOR 4353 is a low viscosity cure incorporated fluoroelastomer copolymer. Tecnoflon® FOR 4353 is well suited for applications where excellent compression set and superior mold release are required.

Some of the properties of Tecnoflon® FOR 4353 are:

- Excellent scorch safety
- Very good mold flow
- Excellent mold release
- Lack of mold fouling
- FDA compliant

Tecnoflon® FOR 4353 can be used for injection and transfer moulding of O-rings, gaskets and seals. Tecnoflon® FOR 4353 can be mixed using typical fluoroelastomers compounding ingredients and mixing can be accomplished with two roll mills or internal mixers.

Tecnoflon® FOR 4353 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.

Tecnoflon® FOR 4353 can be compounded using recommended fillers in compliance with FDA regulations (see 21 CFR 177.2600, section V).

#### 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 black compound

Test Compound	Typical Value	Unit	Test Method
Tecnoflon® FOR 4353	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	45	MU	ASTM D1646
<b>MDR 6 min at 177°C arc 0.5°</b>			ASTM D6601
Minimum torque	0.6	lb·in	
Maximum torque	23.2	lb·in	
t <sub>s2</sub>	1.8	min	
t' <sub>50</sub>	2.1	min	
t' <sub>90</sub>	3.0	min	
<b>Press cure: 10 min at 170°C, post cure: (8+16) h at 250°C</b>			
100% Modulus	7.0	MPa	ASTM D412C
Tensile strength	15.7	MPa	
Elongation at break	174	%	
Hardness	76	ShoreA	ASTM D2240
<b>Compression set</b>			ASTM D395 method B
25% deformation, 70 h at 200 °C			
O-ring #214	15	%	

For FDA compound examples, please see FOR 7353 TDS.

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## Food contact notification statement



Bollate 20/07/2007

To whom it may concern

**STATEMENT ON SUITABILITY FOR CONTACT WITH FOODSTUFF**

To the best of our knowledge on raw materials and production process used, we state that SOLVAY SOLEXIS fluoroelastomer:

**TECNOFLON® FOR 4353**

Supplied in the original sealed packaging can be utilized for articles intended to come in contact with foodstuff according to the requirements of

**US Food and Drug Administration (FDA)**

- 21 CFR 177.2600 Rubber articles intended for repeated use, regarding the fluoroelastomer.
- Threshold of Regulation Exemptions, File 97-011, regarding the use of the curing system at levels up to 1.9 % by weight and the use of the curing agent at levels up to 2 % by weight.

The resultant cross-linked polymer can be destined for use in the manufacture of repeated use rubber articles that may contact food at temperatures up to 250°F ( 121°C).

It is the responsibility of the user to verify that all conditions and specifications outlined under the above mentioned regulations are met, and that the finished articles, manufactured according to good technology practice, are suitable for use in their intended food-contact applications.

For each country market, which the articles are introduced into, user must also verify that both the material and the articles must be in compliance with the applicable laws and regulations of the end markets.

**Dr. Mario Visca**

Mario Visca  
Director, Regulatory Affairs and Industrial Toxicology  
Solvay Solexis

Digitally signed by Dr. Mario Visca  
DN: CN = Dr. Mario Visca, C = IT, O = Solvay Solexis S.p.A., OU = Director, Regulatory Affairs  
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