

## 3M Dyneon™ FE 5641Q Fluoroelastomer

Category : Polymer , Thermoset , Fluoropolymer, TS , Rubber or Thermoset Elastomer (TSE)

### Material Notes:

3M™ Dyneon™ Fluoroelastomer FE 5641Q can be compounded using standard water cooled internal mixers or two-roll mills with standard fillers and ingredients utilized in typical fluoroelastomer formulations. The “dry” ingredients should be blended before adding to the masticated gum. For best results, FE 5641Q should be banded on the mill several minutes prior to adding the blended dry ingredients. Once mixed, the compounded stocks display excellent processing characteristics and storage stability  
 Composition: Di-polymer of vinylidene fluoride and hexafluoropropylene  
 Low shrinkage version of FE-5640Q  
 Process targets: compression molding  
 Improved scorch resistance at high molding temperatures  
 Proprietary incorporated cure technology  
 Excellent mold release  
 Improved cure technology resulting in more consistent part size from successive molding cycles  
 Clean running  
 Compounds prepared from Dyneon FE5641Q can be formulated to meet Mil-R-83248  
 Information provided by Dyneon, A 3M Company

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_3M-Dyneon-FE-5641Q-Fluoroelastomer.php](http://www.lookpolymers.com/polymer_3M-Dyneon-FE-5641Q-Fluoroelastomer.php)

Physical Properties	Metric	English	Comments
Specific Gravity	1.80 g/cc	1.80 g/cc	
Mooney Viscosity	40 @Temperature 121 °C	40 @Temperature 250 °F	ML1+10

Mechanical Properties	Metric	English	Comments
Hardness, Shore A	76	76	Press Cure 5 minutes @ 177°C, Post Cure 24 hours @ 260°C; ASTM D2240
Tensile Strength at Break	16.1 MPa	2340 psi	Press Cure 5 minutes @ 177°C, Post Cure 24 hours @ 260°C
Elongation at Break	185 %	185 %	Press Cure 5 minutes @ 177°C, Post Cure 24 hours @ 260°C
100% Modulus	0.00669 GPa	0.970 ksi	Press Cure 5 minutes @ 177°C, Post Cure 24 hours @ 260°C
Compression Set	11 %	11 %	Aged 70 hours @ 200°C, O-rings - 214); ASTM D395 Method B

Thermal Properties	Metric	English	Comments
Transformation Temperature	-18.0 °C	-0.400 °F	TR10; ASTM D1329

Component Elements Properties	Metric	English	Comments
Fluorine, F	65.9 %	65.9 %	

Descriptive Properties	Value	Comments
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<b>Color</b> Descriptive Properties	<b>Opaque Off-White</b> Value	Comments
MH, Maximum Torque	20.4 inch-lb	100 cpm, 0.5° Arc, 6 Minutes @ 200°C
	24.4 inch-lb	100 cpm, 0.5° Arc, 6 Minutes @ 177°C
ML, Minimum Torque	1.2 inch-lb	100 cpm, 0.5° Arc, 6 Minutes @ 200°C
ML, Minimum Torque	1.4 inch-lb	100 cpm, 0.5° Arc, 6 Minutes @ 177°C
Solubility	Ketones and Esters	
t`50, Time to 50% cure	0.7 minutes	100 cpm, 0.5° Arc, 6 Minutes @ 200°C
t`50, Time to 50% cure	2.8 minutes	100 cpm, 0.5° Arc, 6 Minutes @ 177°C
t`90 - Time to 90% cure	0.8 minutes	100 cpm, 0.5° Arc, 6 Minutes @ 200°C
	3.8 minutes	100 cpm, 0.5° Arc, 6 Minutes @ 177°C
ts2 - Time to 2 in-lb rise from min	0.6 minutes	100 cpm, 0.5° Arc, 6 Minutes @ 200°C
	2.3 minutes	100 cpm, 0.5° Arc, 6 Minutes @ 177°C

## Contact Songhan Plastic Technology Co.,Ltd.

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