

3M Dyneon™ 81TZ High Temperature Perfluoroelastomer

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

Material Notes:

3M™ Dyneon™ PFE 81TZ is a technically advanced high temperature perfluoroelastomer (HT PFE). It is designed to meet the challenges of higher temperature applications. It is classified as FFKM per ASTM D1418. Its fully fluorinated back bone structure provides a very broad chemical and thermal stability. Features and Benefits: Ideal for dry side (thermal processes) semiconductor applications including plasma, and high temperature CPI and aerospace applications. High temperature FFKM. Low metal ion content with low extractables. Upper use temperature of 315°C. Good compression set resistance. Can be compounded to pass AMS 7257C. Can be used to blend with other High Temperature FFKM to adjust ultimate elongation, lower Durometer, and allow for a higher percent deformation of seals in use. Information provided by the Dyneon division of 3M.

Order this product through the following link:

http://www.lookpolymers.com/polymer_3M-Dyneon-81TZ-High-Temperature-Perfluoroelastomer.php

Physical Properties	Metric	English	Comments
Specific Gravity	2.00 g/cc	2.00 g/cc	
Mooney Viscosity	80 @Temperature 121 °C	80 @Temperature 250 °F	ML 1+10

Mechanical Properties	Metric	English	Comments
Hardness, Shore A	71	71	Press cure 15 Minutes @ 188°C, Post Cure 24 Hours @ 250°C; ASTM D2240
Tensile Strength at Break	11.9 MPa	1730 psi	Press cure 15 Minutes @ 188°C, Post Cure 24 Hours @ 250°C
Elongation at Break	230 %	230 %	Press cure 15 Minutes @ 188°C, Post Cure 24 Hours @ 250°C
100% Modulus	0.00470 GPa	0.682 ksi	Press cure 15 Minutes @ 188°C, Post Cure 24 Hours @ 250°C
Compression Set	27 % @Treatment Temp. 232 °C, Time 252000 sec	27 % @Treatment Temp. 450 °F, Time 70.0 hour	Method B, -214 O-rings, Aged 70 Hours, 25% Deformation; ASTM D395
	35 % @Treatment Temp. 232 °C, Time 605000 sec	35 % @Treatment Temp. 450 °F, Time 168 hour	Method B, -214 O-rings, Aged 168 Hours, 25% Deformation; ASTM D395
	50 % @Treatment Temp. 300 °C, Time 252000 sec	50 % @Treatment Temp. 572 °F, Time 70.0 hour	Method B, -214 O-rings, Aged 70 Hours, 18% Deformation; ASTM D395

Mechanical Properties	Metric	English	Comments
	@Treatment Temp. 300 °C, Time 605000 sec	@Treatment Temp. 572 °F, Time 168 hour	Method B, -214 O-rings, Aged 168 Hours, 18% Deformation; ASTM D395

Thermal Properties	Metric	English	Comments
Maximum Service Temperature, Air	315 °C	599 °F	
Brittleness Temperature	-35.0 °C	-31.0 °F	
Transformation Temperature	-2.00 °C	28.4 °F	TR10

Descriptive Properties	Value	Comments
Color	White	
Form	Crumb	
MH, Maximum Toque	10.1 inch-lb	100 cpm, 0.5° Arc, 6 Minutes @ 177°C
ML, Minimum Torque	0.9 inch-lb	100 cpm, 0.5° Arc, 6 Minutes @ 177°C
t2, Time to 2 Inch-lb Rise from Minimum	3.4 Minute	100 cpm, 0.5° Arc, 6 Minutes @ 177°C
t'50, Time to 50% Cure	4.7 Minutes	100 cpm, 0.5° Arc, 6 Minutes @ 177°C
t'90, Time to 90% Cure	8.4 Minutes	100 cpm, 0.5° Arc, 6 Minutes @ 177°C

Contact Songhan Plastic Technology Co.,Ltd.

Website : www.lookpolymers.com

Email : sales@lookpolymers.com

Tel : +86 021-51131842

Mobile : +86 13061808058

Skype : lookpolymers

Address : United North Road 215,Fengxian District, Shanghai City,China