

## 3M Dyneon™ BRE 7231 Base Resistant Elastomer

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

### Material Notes:

3M™ Dyneon™ Fluoroelastomer BRE 7231 is a Base Resistant Fluoroelastomer containing 60% fluorine. It is a bisphenol cured terpolymer and is categorized as a type 4 FKM per ASTM D1418. This product offers improved resistance to high amine containing oils and lubes, coolants and transmission fluids as compared to Type 1 and Type 2 FKM's. Possible applications for BRE 7231 are engine, transmission, transfer case or differential shaft seals or as a rubber coating for cylinder head gaskets, where multifluid resistance to engine oils and coolants is required  
**Composition:** Terpolymer of tetrafluoroethylene, propylene and vinylidene fluoride  
**Improved resistance to new types of amine containing automotive fluids and other basic chemicals**  
**Improved low temperature sealing performance**  
**Application targets:** bonded shaft seals and other molded goods  
**Excellent processability and metal adhesion**  
**Process targets:** injection, transfer and compression molding  
**Proprietary incorporated cure technology**  
 Information provided by Dyneon, A 3M Company

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_3M-Dyneon-BRE-7231-Base-Resistant-Elastomer.php](http://www.lookpolymers.com/polymer_3M-Dyneon-BRE-7231-Base-Resistant-Elastomer.php)

Physical Properties	Metric	English	Comments
Specific Gravity	1.60 g/cc	1.60 g/cc	
Mooney Viscosity	34 @Temperature 121 °C	34 @Temperature 250 °F	ML1+10

Mechanical Properties	Metric	English	Comments
Hardness, Shore A	70	70	Press Cure 10 minutes @ 177°C, Post Cure 16 hours @ 232°C; ASTM D2240
Tensile Strength at Break	13.8 MPa	2000 psi	Press Cure 10 minutes @ 177°C, Post Cure 16 hours @ 232°C
Elongation at Break	210 %	210 %	Press Cure 10 minutes @ 177°C, Post Cure 16 hours @ 232°C
100% Modulus	0.00586 GPa	0.850 ksi	Press Cure 10 minutes @ 177°C, Post Cure 16 hours @ 232°C
Compression Set	19 %	19 %	Aged 70 hours @ 150° C
	20 %	20 %	Aged 70 hours @ 177°C
	27 %	27 %	Aged 70 hours @ RT

Component Elements Properties	Metric	English	Comments
Fluorine, F	60 %	60 %	

Descriptive Properties	Value	Comments
Color	Straw	

Descriptive Properties	Value	Comments
ML, Minimum Torque	1.2 inch-lb	100 cpm, 0.5° Arc, 6 Minutes @ 177°C, ASTM D5289
Solubility	Ketones and Esters	
t`50, Time to 50% cure	2.3 minutes	100 cpm, 0.5° Arc, 6 Minutes @ 177°C, ASTM D5289
t`90 - Time to 90% cure	4.3 minutes	100 cpm, 0.5° Arc, 6 Minutes @ 177°C, ASTM D5289
ts2 - Time to 2 in-lb rise from min	1.7 minutes	100 cpm, 0.5° Arc, 6 Minutes @ 177°C, ASTM D5289

## Contact Songhan Plastic Technology Co.,Ltd.

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