# Premi-Ject® 6100-18

#### Thermoset, Unspecified

Premix, Inc.

#### Message:

Premi-Ject® 6100-18 is a fiberglass reinforced thermoset bulk molding compound for electrical and flame retardant applications.

Good dimensional stability, including excellent thermal resistance.

Pigmentable for molded-in color; best appearance with mold texture.

Excellent property retention in cold and hot environments.

Recognized by Underwriters Laboratories, File # E42524.

Underwriters Laboratories 94-VO flame resistance at 1.5mm thickness.

Filler / Reinforcement         Glass Fiber           Additive         Flame Retardant           Features         Flame Retardant           Good Colorability         Good Colorability           Good Dimensional Stability         Medium Heat Resistance           Uses         Electrical/Electronic Applications           UL File Number         E42524           Forms         BMC - Bulk Molding Compound           Physical         Nominal Value         Unit           Specific Gravity         1.70 to 1.85         g/cm³           Mechanical         Nominal Value         Unit         Test Method           Tensile Stringth (Compression Molded)         1200         MPa         ASTM D638           Flexural Modulus (Compression Molded)         1300         MPa         ASTM D790           Flexural Strength (Compression Molded)         10300         MPa         ASTM D790           Flexural Strength (Compression Molded)         1030         MPa         ASTM D790           Flexural Strength (Compression Molded)         1030         MPa         ASTM D790           Plexural Strength (Compression Molded)         1030         MPa         ASTM D790           Pload         Northead Izod Impact (Compression Molded)         1030         J/m         ASTM	General Information				
Features   Flame Retardant   Good Colorability   Good Dimensional Stability   Good Dimensional Stability   Medium Heat Resistance   Flame Retardant   Medium Heat Resistance   Flame Retardant   Medium Heat Resistance   Flame Retardant   Flame Re	Filler / Reinforcement	Glass Fiber			
Good Colorability   Good Dimensional Stability   Medium Heat Resistance   Section   Medium Heat Resistance   Medium Heat Resistance   Section	Additive	Flame Retardant			
Good Dimensional Stability   Medium Heat Resistance   Medium Heat Resistance	Features	Flame Retardant			
Uses         Electrical/Electronic Applications           UL File Number         E42524           Forms         BMC - Bulk Molding Compound           Physical         Nominal Value         Unit           Specific Gravity         1.70 to 1.85         g/cm³           Molding Shrinkage - Flow         0.15 to 0.35         %           Mechanical         Nominal Value         Unit         Test Method           Tensile Strength (Compression Molded)         12400         MPa         ASTM D638           Flexural Modulus (Compression Molded)         10300         MPa         ASTM D790           Flexural Strength (Compression Molded)         1030         MPa         ASTM D790           Flexural Strength (Compression Molded)         1030         MPa         ASTM D790           Plexural Strength (Compression Molded)         1030         MPa         ASTM D790           Plexural Modulus (Compression Molded)         1030         J/m <t< td=""><td></td><td>Good Colorability</td><td></td><td></td></t<>		Good Colorability			
Electrical/Electronic Applications           UL File Number         E42524           Forms         BMC - Bulk Molding Compound           Physical         Nominal Value         Unit           Specific Gravity         1.70 to 1.85         g/cm³           Molding Shrinkage - Flow         0.15 to 0.35         %           Mechanical         Nominal Value         Unit         Test Method           Tensile Modulus (Compression Molded)         1300         MPa         ASTM D638           Flexural Strength (Compression Molded)         10300         MPa         ASTM D790           Flexural Strength (Compression Molded)         1030         MPa         ASTM D790           Poisson's Ratio         1030         J/m         ASTM D790           Notched Izod Impact (Compression Molded)         370         J/m         ASTM D256           Unnotched Izod Impact (Compression Molded)         370         J/m         ASTM D256           Therm		Good Dimensional Stability			
UL File Number         E42524           Forms         BMC - Bulk Molding Compound           Physical         Nominal Value         Unit           Specific Gravity         1.70 to 1.85         g/cm³           Molding Shrinkage - Flow         0.15 to 0.35         %           Mechanical         Nominal Value         Unit         Test Method           Tensile Modulus (Compression Molded)         12400         MPa         ASTM D638           Flexural Modulus (Compression Molded)         10300         MPa         ASTM D790           Flexural Strength (Compression Molded)         103         MPa         ASTM D790           Flexural Strength (Compression Molded)         103         MPa         ASTM D790           Poisson's Ratio         0.30         Unit         Test Method           Notched Izod Impact (Compression Molded)         370         J/m         ASTM D256           Unnotched Izod Impact (Compression Molded)         370         J/m         ASTM D256           Unnotched Izod Impact (Compression Molded)         Nominal Value         Unit         Test Method           Unnotched Izod Impact (Compression Molded)         Nominal Value         Unit         Test Method           Unnotched Izod Impact (Compression Molded)         Nominal Value         Unit		Medium Heat Resistance			
UL File Number         E42524           Forms         BMC - Bulk Molding Compound           Physical         Nominal Value         Unit           Specific Gravity         1.70 to 1.85         g/cm³           Molding Shrinkage - Flow         0.15 to 0.35         %           Mechanical         Nominal Value         Unit         Test Method           Tensile Modulus (Compression Molded)         12400         MPa         ASTM D638           Flexural Modulus (Compression Molded)         10300         MPa         ASTM D790           Flexural Strength (Compression Molded)         103         MPa         ASTM D790           Flexural Strength (Compression Molded)         103         MPa         ASTM D790           Poisson's Ratio         0.30         Unit         Test Method           Notched Izod Impact (Compression Molded)         370         J/m         ASTM D256           Unnotched Izod Impact (Compression Molded)         370         J/m         ASTM D256           Unnotched Izod Impact (Compression Molded)         Nominal Value         Unit         Test Method           Unnotched Izod Impact (Compression Molded)         Nominal Value         Unit         Test Method           Unnotched Izod Impact (Compression Molded)         Nominal Value         Unit	Hear	Flactrical/Flactronic Applications			
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Specific Gravity         1.70 to 1.85         g/cm³           Molding Shrinkage - Flow         0.15 to 0.35         %           Mechanical         Nominal Value         Unit         Test Method           Tensile Modulus (Compression Molded)         12400         MPa         ASTM D638           Tensile Strength (Compression Molded)         36.5         MPa         ASTM D638           Flexural Modulus (Compression Molded)         10300         MPa         ASTM D790           Flexural Strength (Compression Molded)         103         MPa         ASTM D790           Poisson's Ratio         0.30         WPa         ASTM D790           Impact         Nominal Value         Unit         Test Method           Notched Izod Impact (Compression Molded)         370         J/m         ASTM D256           Wolded)         370         J/m         ASTM D256           Thermal         Nominal Value         Unit         Test Method           CLTE         Flow <sup>1</sup> 2.5E-5         cm/cm/*C           Transverse <sup>2</sup> 3.5E-5         cm/cm/*C           Thermal Conductivity         0.30         W/m/K			I loit		
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Tensile Strength (Compression Molded) 36.5 MPa ASTM D638  Flexural Modulus (Compression Molded) 10300 MPa ASTM D790  Flexural Strength (Compression Molded) 103 MPa ASTM D790  Poisson's Ratio 0.30  Impact Nominal Value Unit Test Method  Notched Izod Impact (Compression Molded) J/m ASTM D256  Unnotched Izod Impact (Compression Molded) J/m ASTM D256  Unnotched Izod Impact (Compression Molded) J/m ASTM D256  Thermal Nominal Value Unit Test Method  CLTE  Flow 1 Test Method  CLTE  Flow 2 S.5E-5 Cm/cm/°C  Transverse 2 3.5E-5 Cm/cm/°C  Thermal Conductivity 0.30 W/m/K	Mechanical	Nominal Value	Unit	Test Method	
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Flexural Strength (Compression Molded) 103 MPa ASTM D790  Poisson's Ratio 0.30  Impact Nominal Value Unit Test Method  Notched Izod Impact (Compression Molded) 370  Unnotched Izod Impact (Compression Molded) 510  Thermal Nominal Value Unit Test Method  CLTE  Flow 1 2.5E-5  Transverse 2 3.5E-5  Thermal Conductivity 0.30  MPa ASTM D790  ASTM D790  Test Method  Dirthemal Conductivity 0.30  MPa ASTM D790  Test Method  ASTM D256  Test Method  Test Method  Test Method  W/m/K	Tensile Strength (Compression Molded)	36.5	MPa	ASTM D638	
Poisson's Ratio 0.30 Impact Nominal Value Unit Test Method  Notched Izod Impact (Compression Molded) 370 Unnotched Izod Impact (Compression Molded) 510 Thermal Nominal Value Unit Test Method  CLTE  Flow 1 Flow 2 5.55 Cm/cm/°C Transverse 2 1.30  Nominal Conductivity 0.30  Nominal Value W/m/K	Flexural Modulus (Compression Molded)	10300	MPa	ASTM D790	
ImpactNominal ValueUnitTest MethodNotched Izod Impact (Compression Molded)370J/mASTM D256Unnotched Izod Impact (Compression Molded)510J/mASTM D256ThermalNominal ValueUnitTest MethodCLTEFlow 12.5E-5cm/cm/°CTransverse 23.5E-5cm/cm/°CThermal Conductivity0.30W/m/K	Flexural Strength (Compression Molded)	103	MPa	ASTM D790	
Notched Izod Impact (Compression Molded)  370  Unnotched Izod Impact (Compression Molded)  510  Impact Molded  Impact (Compression Molded)  Impact (Compression Molded)  Impact (Compression Molded)  Impact (Compression Molded)  Impact Molded  Impact (Compression Molded)  Impact Molded  Impact (Compression Molded)  Impact Molded  Impact	Poisson's Ratio	0.30			
Molded)         370         J/m         ASTM D256           Unnotched Izod Impact (Compression Molded)         510         J/m         ASTM D256           Thermal         Nominal Value         Unit         Test Method           CLTE         Flow 1         2.5E-5         cm/cm/°C           Transverse 2         3.5E-5         cm/cm/°C           Thermal Conductivity         0.30         W/m/K	Impact	Nominal Value	Unit	Test Method	
Molded)         510         J/m         ASTM D256           Thermal         Nominal Value         Unit         Test Method           CLTE         Flow 1         2.5E-5         cm/cm/°C           Transverse 2         3.5E-5         cm/cm/°C           Thermal Conductivity         0.30         W/m/K		370	J/m	ASTM D256	
CLTE           Flow <sup>1</sup> 2.5E-5         cm/cm/°C           Transverse <sup>2</sup> 3.5E-5         cm/cm/°C           Thermal Conductivity         0.30         W/m/K		510	J/m	ASTM D256	
Flow <sup>1</sup> 2.5E-5 cm/cm/°C Transverse <sup>2</sup> 3.5E-5 cm/cm/°C Thermal Conductivity 0.30 W/m/K	Thermal	Nominal Value	Unit	Test Method	
Transverse <sup>2</sup> 3.5E-5 cm/cm/°C Thermal Conductivity 0.30 W/m/K	CLTE				
Thermal Conductivity 0.30 W/m/K	Flow <sup>1</sup>	2.5E-5	cm/cm/°C		
·	Transverse <sup>2</sup>	3.5E-5	cm/cm/°C		
RTI Elec 130 °C UL 746	Thermal Conductivity	0.30	W/m/K		
	RTI Elec	130	°C	UL 746	

RTI Imp	130	°C	UL 746
RTI Str	130	°C	UL 746
Electrical	Nominal Value	Unit	Test Method
Dielectric Strength	15	kV/mm	ASTM D149
Arc Resistance	> 180	sec	ASTM D495
Comparative Tracking Index	600	V	ASTM D2303
Flammability	Nominal Value	Unit	Test Method
Flame Rating (1.52 mm)	V-0		UL 94
Injection	Nominal Value	Unit	
Mold Temperature	149	°C	
Injection Pressure	3.45 to 6.89	MPa	
NOTE			
1.	XY Direction		
2.	Z Direction		

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