

## SABIC Innovative Plastics REMEX VR4831 PBT

Category : Polymer , Thermoplastic , Polyester, TP , Polybutylene Terephthalate (PBT)

### Material Notes:

15% Glass filled PBT, Flame retardant, UL Recognized, Utility grade, Black color only

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_SABIC-Innovative-Plastics-REMEX-VR4831-PBT.php](http://www.lookpolymers.com/polymer_SABIC-Innovative-Plastics-REMEX-VR4831-PBT.php)

Physical Properties	Metric	English	Comments
Specific Gravity	1.42 g/cc	1.42 g/cc	ASTM D792
Density	1.43 g/cc	0.0517 lb/in <sup>3</sup>	ISO 1183
Filler Content	15 %	15 %	ASTM D229
Moisture Absorption	0.0400 %	0.0400 %	23 <sup>o</sup> C / 50% RH; ISO 62
Water Absorption at Saturation	0.16 %	0.16 %	ISO 62
Linear Mold Shrinkage, Flow	0.0080 - 0.010 cm/cm @Thickness 3.20 mm	0.0080 - 0.010 in/in @Thickness 0.126 in	SABIC Method
Linear Mold Shrinkage, Transverse	0.0070 - 0.010 cm/cm @Thickness 3.20 mm	0.0070 - 0.010 in/in @Thickness 0.126 in	SABIC Method
Melt Flow	21.3 g/10 min @Load 5.00 kg, Temperature 265 <sup>o</sup> C	21.3 g/10 min @Load 11.0 lb, Temperature 509 <sup>o</sup> F	ASTM D1238
Melt Index of Compound	15 g/10 min @Load 5.00 kg, Temperature 265 <sup>o</sup> C	15 g/10 min @Load 11.0 lb, Temperature 509 <sup>o</sup> F	MVR [cm <sup>3</sup> /10 min]; ISO 1133

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	61.0 MPa	8850 psi	Type I, 5 mm/min; ASTM D638
	63.0 MPa	9140 psi	5 mm/min; ISO 527
Tensile Strength, Yield	65.0 MPa	9430 psi	Type I, 5 mm/min; ASTM D638
	65.0 MPa	9430 psi	5 mm/min; ISO 527
Elongation at Break	3.0 %	3.0 %	Type I, 5 mm/min; ASTM D638
	3.4 %	3.4 %	5 mm/min; ISO 527
Elongation at Yield	2.5 %	2.5 %	5 mm/min; ISO 527

Mechanical Properties	Metric	English	Comments
Tensile Modulus	4.32 GPa	627 ksi	5 mm/min; ASTM D638
	4.46 GPa	647 ksi	1 mm/min; ISO 527
Flexural Yield Strength	105 MPa	15200 psi	1.3 mm/min, 50 mm span; ASTM D790
	107 MPa	15500 psi	2 mm/min; ISO 178
Flexural Modulus	3.93 GPa	570 ksi	1.3 mm/min, 50 mm span; ASTM D790
	4.21 GPa	611 ksi	2 mm/min; ISO 178
Izod Impact, Notched	0.890 J/cm	1.67 ft-lb/in	ASTM D256
Izod Impact, Unnotched	5.35 J/cm	10.0 ft-lb/in	ASTM D4812
Izod Impact, Notched (ISO)	7.00 kJ/m <sup>2</sup>	3.33 ft-lb/in <sup>2</sup>	80*10*4; ISO 180/1A
	4.00 kJ/m <sup>2</sup> @Temperature -30.0 °C	1.90 ft-lb/in <sup>2</sup> @Temperature -22.0 °F	80*10*4; ISO 180/1A
Izod Impact, Unnotched (ISO)	34.0 kJ/m <sup>2</sup>	16.2 ft-lb/in <sup>2</sup>	80*10*4; ISO 180/1U
	32.0 kJ/m <sup>2</sup> @Temperature -30.0 °C	15.2 ft-lb/in <sup>2</sup> @Temperature -22.0 °F	80*10*4; ISO 180/1U
Charpy Impact, Notched	2.50 J/cm <sup>2</sup>	11.9 ft-lb/in <sup>2</sup>	Edgew 80*10*4 sp=62mm; ISO 179/1eA
Dart Drop, Total Energy	12.0 J	8.85 ft-lb	ASTM D3763
	@Temperature 23.0 °C	@Temperature 73.4 °F	

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	43.0 Åµm/m-Å°C	23.9 Åµin/in-Å°F	ASTM E 831
	@Temperature -40.0 - 40.0 Å°C	@Temperature -40.0 - 104 Å°F	
CTE, linear, Transverse to Flow	43.0 Åµm/m-Å°C	23.9 Åµin/in-Å°F	ISO 11359-2
	@Temperature -40.0 - 40.0 Å°C	@Temperature -40.0 - 104 Å°F	
CTE, linear, Transverse to Flow	128 Åµm/m-Å°C	71.1 Åµin/in-Å°F	ASTM E 831
	@Temperature -40.0 - 40.0 Å°C	@Temperature -40.0 - 104 Å°F	

Thermal Properties	128 Åum/m-Å°C Metric	71.1 Åuin/in-Å°F English	Comments ISO 11358-2
	@Temperature -40.0 - 40.0 Å°C	@Temperature -40.0 - 104 Å°F	
Deflection Temperature at 0.46 MPa (66 psi)	150 Å°C	302 Å°F	Flatw 80*10*4 sp=64mm; ISO 75/Bf
	150 Å°C	302 Å°F	unannealed; ASTM D648
	@Thickness 3.20 mm	@Thickness 0.126 in	
Deflection Temperature at 1.8 MPa (264 psi)	120 Å°C	248 Å°F	Flatw 80*10*4 sp=64mm; ISO 75/Af
	119 Å°C	246 Å°F	unannealed; ASTM D648
	@Thickness 3.20 mm	@Thickness 0.126 in	
Vicat Softening Point	143 Å°C	289 Å°F	Rate B/50; ASTM D1525
	143 Å°C	289 Å°F	Rate B/50; ISO 306
	144 Å°C	291 Å°F	Rate B/120; ISO 306
Flammability, UL94	V-0	V-0	UL 94 by SABIC-IP
	@Thickness 1.50 mm	@Thickness 0.0591 in	
	5VA	5VA	UL 94 by SABIC-IP
	@Thickness 2.30 mm	@Thickness 0.0906 in	

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