

Rynite® 408 BK515

THERMOPLASTIC POLYESTER RESIN

Rynite® 408 BK515 is a 30% Glass Reinforced, Toughened, Polyethylene Terephthalate

Product information

Resin Identification	PET-IGF30	ISO 1043
Part Marking Code	>PET-IGF30<	ISO 11469

Rheological properties

Moulding shrinkage, parallel	0.2 ^[DS] %	ISO 294-4, 2577
Moulding shrinkage, normal	0.8 ^[DS] %	ISO 294-4, 2577
[DS]: Derived from similar grade		

Typical mechanical properties

Tensile Modulus	9300 MPa	ISO 527-1/-2
Stress at break, 5mm/min	127 MPa	ISO 527-1/-2
Strain at break, 5mm/min	2.9 %	ISO 527-1/-2
Flexural Modulus	7960 MPa	ISO 178
Charpy impact strength, 23°C	64 kJ/m ²	ISO 179/1eU
Charpy impact strength, -30°C	86 ^[DS] kJ/m ²	ISO 179/1eU
Charpy notched impact strength, 23°C	13 kJ/m ²	ISO 179/1eA
Charpy notched impact strength, -30°C	12 ^[DS] kJ/m ²	ISO 179/1eA
Izod notched impact strength, 23°C	13 kJ/m ²	ISO 180/1A
Poisson's ratio	0.34	
[DS]: Derived from similar grade		

Thermal properties

Melting temperature, 10°C/min	250 °C	ISO 11357-1/-3
Glass transition temperature, 10°C/min	60 °C	ISO 11357-1/-3
Temp. of deflection under load, 1.8 MPa	218 °C	ISO 75-1/-2
Temp. of deflection under load, 0.45 MPa	237 °C	ISO 75-1/-2
Coeff. of linear therm. expansion, parallel	15 ^[DS] E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion, normal	85 ^[DS] E-6/K	ISO 11359-1/-2
RTI, electrical, 0.75mm	140 °C	UL 746B
RTI, electrical, 1.5mm	140 °C	UL 746B
RTI, electrical, 3mm	140 °C	UL 746B
RTI, impact, 0.75mm	140 °C	UL 746B
RTI, impact, 1.5mm	140 °C	UL 746B
RTI, impact, 3mm	140 °C	UL 746B
RTI, strength, 0.75mm	140 °C	UL 746B
RTI, strength, 1.5mm	140 °C	UL 746B
RTI, strength, 3mm	140 °C	UL 746B
[DS]: Derived from similar grade		



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Flammability

Burning Behav. at 1.5mm nom. thickn.	HB class	UL 94
Thickness tested	1.5 mm	UL 94
UL recognition	yes	UL 94
Burning Behav. at thickness h	HB class	UL 94
Thickness tested	0.75 mm	UL 94
UL recognition	yes	UL 94
FMVSS Class	B	ISO 3795 (FMVSS 302)
Burning rate, Thickness 1 mm	<80 mm/min	ISO 3795 (FMVSS 302)

Electrical properties

Relative permittivity, 1MHz	3.3 ^[DS]	IEC 62631-2-1
Dissipation factor, 1MHz	150 ^[DS]	IEC 62631-2-1
Volume resistivity	>1E13 ^[DS] Ohm.m	IEC 62631-3-1
Surface resistivity	1E14 ^[DS] Ohm	IEC 62631-3-2
Electric strength	33 kV/mm	IEC 60243-1
Comparative tracking index	350	IEC 60112
Electric Strength, Short Time, 1mm	31 kV/mm	IEC 60243-1
Electric Strength, Short Time, 2mm	22 kV/mm	IEC 60243-1

[DS]: Derived from similar grade

Other properties

Density	1490 kg/m ³	ISO 1183
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Injection

Drying Recommended	yes	
Drying Temperature	120 °C	
Drying Time, Dehumidified Dryer	4 - 6 h	
Processing Moisture Content	≤0.02 ^[1] %	
Melt Temperature Optimum	285 °C	Internal
Min. melt temperature	270 °C	
Max. melt temperature	290 °C	
Screw tangential speed	≤0.2 m/s	
Mold Temperature Optimum	95 °C	
Min. mould temperature	75 °C	
Max. mould temperature	95 °C	
Hold pressure range	≥80 MPa	
Hold pressure time	4 s/mm	
Back pressure	As low as possible	
Ejection temperature	170 °C	Internal

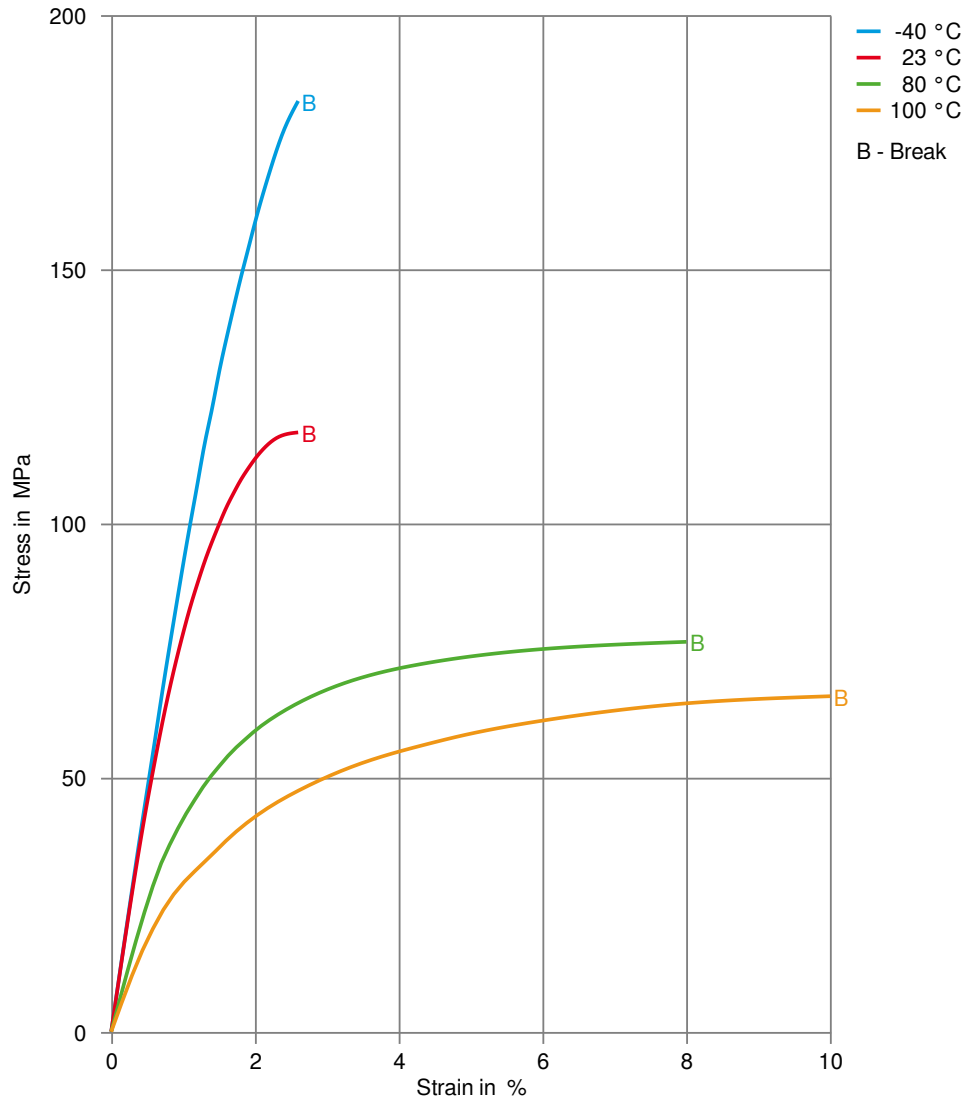
[1]: At levels above 0.02%, strength and toughness will decrease, even though parts may not exhibit surface defects.



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Stress-strain



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Secant modulus-strain

