

DIAMALLOY ENGINEERED ALLOYS PC/PBT 1418

Polycarbonate + PBT

Network Polymers, Inc.

Message:

DIAMALLOY ENGINEERED ALLOYS PC/PBT 1418 is a Polycarbonate + PBT (PC+PBT) product. It is available in North America.

General Information			
UL YellowCard	E51193-101898745		
Forms	Pellets		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.21	g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) ¹			ASTM D1238
230°C/3.8 kg	6.0	g/10 min	
265°C/2.16 kg	12	g/10 min	
Molding Shrinkage - Flow	0.70 to 0.90	%	ASTM D955
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength ² (Yield)	53.8	MPa	ASTM D638
Tensile Elongation ³ (Yield)	4.6	%	ASTM D638
Flexural Modulus ⁴	2140	MPa	ASTM D790B
Flexural Strength ⁵ (Yield)	80.7	MPa	ASTM D790B
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (3.18 mm)	640	J/m	ASTM D256A
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (1.8 MPa, Unannealed, 3.18 mm)	105	°C	ASTM D648
Vicat Softening Temperature	128	°C	ASTM D1525 ⁶
Injection	Nominal Value	Unit	
Drying Temperature - Desiccant Dryer	104 to 110	°C	
Drying Time - Desiccant Dryer	4.0 to 6.0	hr	
Dew Point - Desiccant Dryer	< -28.9	°C	
Suggested Max Moisture	< 0.010	%	
Suggested Shot Size	60 to 80	%	
Suggested Max Regrind	20	%	
Rear Temperature	243 to 266	°C	
Middle Temperature	254 to 277	°C	
Front Temperature	260 to 282	°C	
Nozzle Temperature	260 to 288	°C	
Melt Temperature (Aim)	260	°C	

Mold Temperature	54.4 to 82.2	°C
Injection Pressure	68.9 to 138	MPa
Injection Rate	Slow-Moderate	
Holding Pressure	0.345 to 0.517	MPa
Back Pressure	0.552 to 1.03	MPa
Screw Speed	50 to 75	rpm
Clamp Tonnage	4.1 to 6.9	kN/cm ²
Cushion	2.54 to 7.62	mm

NOTE

1.	Procedure A
2.	Type I, 51 mm/min
3.	Type I, 51 mm/min
4.	Method I (3 point load), 1.3 mm/min
5.	Method I (3 point load), 1.3 mm/min
6.	Rate B (120°C/h), Loading 1 (10 N)

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Recommended distributors for this material

Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China



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