



Triax 1180

Excellent processability and chemical resistance, good fatigue performance, abrasion characteristics, and impact resistance

ISO Shortname: ABS / Polyamide Blend

Property	Test Condition	Unit	Standard	Value	
				dry as molded	conditioned
Rheological properties					
Mold shrinkage, parallel to flow		in/in	ASTM D 955	0.009	
Mold shrinkage, cross to flow		in/in	ASTM D 955	0.010	
Mechanical properties (23 °C/50 % r. h.)					
Tensile stress at yield		lb/in ²	ASTM D 638	5800	4300
Tensile elongation at break	-	%	ASTM D 638	> 200	> 300
Tensile modulus	-	lb/in ²	ASTM D 638	260000	230000
Flexural stress at yield	-	lb/in ²	ASTM D 790	8800	6000
Flexural modulus	-	lb/in ²	ASTM D 790	250000	160000
Izod notched impact strength	73 °F; 0.125 in	ft-lb/in	ASTM D 256	15	20
Izod notched impact strength	-40 °F; 0.125 in	ft-lb/in	ASTM D 256	2.3	1.9
Izod notched impact strength	73 °F; 0.250 in	ft-lb/in	ASTM D 256	16	20
Izod notched impact strength	-40 °F; 0.250 in	ft-lb/in	ASTM D 256	1.7	2.3
Instrumented impact, Total energy	-40 °F; 0.100 in; 0.5-in dart; 1.6-in clamp; 7.6 mph	ft-lb	ASTM D 3763	33	40
Rockwell hardness		R Scale	ASTM D 785	93	69
Thermal properties					
Vicat softening temperature	Rate B; 1 kg; 120 °C/h	°F	ASTM D 1525	385	351
Relative temperature index, mechanical with impact	Thickness tested: 1.57 mm	°C	UL 746B	60	
Relative temperature index, mechanical without impact	Thickness tested: 1.57 mm	°C	UL 746B	60	
Relative temperature index, electrical	Thickness tested: 1.57 mm	°C	UL 746B	60	
Deflection temperature under load, Unannealed	264 psi; 0.125 in	°F	ASTM D 648	129	122
Deflection temperature under load, Unannealed	66 psi; 0.125 in	°F	ASTM D 648	183	183
Deflection temperature under load, Unannealed	264 psi; 0.250 in	°F	ASTM D 648	142	136
Deflection temperature under load, Unannealed	66 psi; 0.250 in	°F	ASTM D 648	210	205
Other properties (23 °C)					
Water absorption	73 °F; immersion to saturation	%	ASTM D 570	5.5	
Water absorption	73 °F; immersion 24 h	%	ASTM D 570	1.5	
Specific gravity		-	ASTM D 792	1.07	
Density		lb/in ³	ASTM D 792	0.039	
Specific volume		in ³ /lb	ASTM D 792	25.9	
Material specific properties					
Gloss	20 °	-	ASTM D 523	82	
Gloss	60 °	-	ASTM D 523	91	