Technical Data Sheet

DIAMALOY ENGINEERED ALLOYS TPE/ABS ST4600

Thermoplastic Elastomer Alloy
Engineering Plastics

General		
Features	• Weather Resistant	
Agency Ratings	• EC 1907/2006 (REACH)	• EU 2002/96/EC (WEEE)
RoHS Compliance	• RoHS Compliant	
Forms	• Pellets	
Processing Method	• Injection Molding	

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Melt Mass-Flow Rate (MFR) [1] (230°C/3.8 kg)	15 g/10 min	15 g/10 min	ASTM D1238
Impact	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Instrumented Dart Impact			ASTM D3763
73°F (23°C), 0.125 in (3.18 mm), Injection Molded, Maximum Energy	53.1 in·lb	6.00 J	
73°F (23°C), 0.125 in (3.18 mm), Injection Molded, Total Energy	70.8 in·lb	8.00 J	
Hardness	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Durometer Hardness			ASTM D2240
Shore D, 73°F (23°C), 0.125 in (3.18 mm), Injection Molded	46	46	
Flammability	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Burning Rate (0.125 in (3.18 mm))	1.7 in/min	42 mm/min	ISO 3795
Optical	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Gardner Gloss			ASTM D523
60°, 0.125 mil (3.18 µm), Extruded Sheet	10	10	

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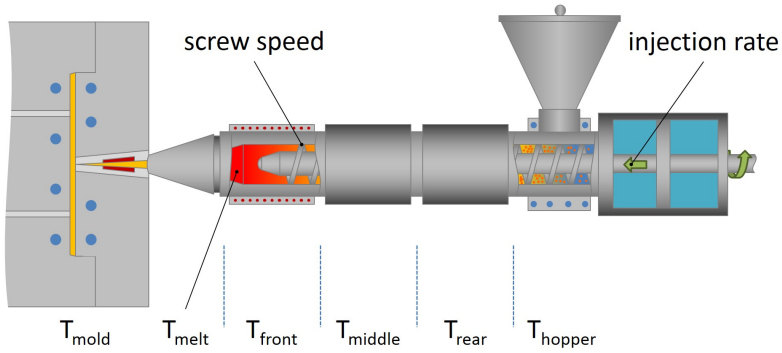

Injection	Nominal Value (English)	Nominal Value (SI)
Drying Temperature	176 to 185 °F	80 to 85 °C
Drying Time	4.0 to 6.0 hr	4.0 to 6.0 hr
Suggested Max Moisture	0.10 %	0.10 %
Suggested Shot Size	40 to 70 %	40 to 70 %
Suggested Max Regrind	25 %	25 %
Rear Temperature	446 to 500 °F	230 to 260 °C
Middle Temperature	450 to 500 °F	232 to 260 °C
Front Temperature	455 to 500 °F	235 to 260 °C
Nozzle Temperature	428 to 500 °F	220 to 260 °C
Processing (Melt) Temp	428 to 500 °F	220 to 260 °C
Mold Temperature	160 to 180 °F	71 to 82 °C
Injection Rate	Fast	Fast
Back Pressure	75.0 to 150 psi	0.517 to 1.03 MPa