+135-3858-6433 (GuangDong)
+188-1699-6168 (ShangHai)
+852-6957-5415 (HongKong)

Hybrid S459

Ravago Manufacturing Americas, LLC - Acrylonitrile Butadiene Styrene + PC

General Information

General			
Material Status	• Commercial: Active		
Availability	• North America		
Features	• General Purpose		
Uses	• General Purpose		
RoHS Compliance	• RoHS Compliant		
Automotive Specifications	• CHRYSLER MS-DB195 Type A CPN2595 Color: Gray	• CHRYSLER MS-DB195 Type A CPN2595 Color: Natural	• GM GMP.ABS+PC.012 Color: Gray
UL File Number	• E157012		
Forms	• Pellets		
Processing Method	• Injection Molding		

ASTM and ISO Properties [1]

Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.11	g/cm³	ASTM D792
Density	1.11	g/cm³	ISO 1183
Melt Mass-Flow Rate			ASTM D1238
230°C/3.8 kg	2.7	g/10 min	
260°C/2.16 kg	5.7	g/10 min	
260°C/5.0 kg	20	g/10 min	
Melt Volume-Flow Rate (MVR)			ISO 1133
230°C/3.8 kg	2.40	cm³/10min	
260°C/2.16 kg	5.10	cm³/10min	
260°C/5.0 kg	18.0	cm³/10min	
Molding Shrinkage - Flow	0.50 to 0.70	%	ASTM D955
Molding Shrinkage - Flow	0.50 to 0.70	%	ISO 294-4
Water Absorption (24 hr)	0.090	%	ASTM D570
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Strength (Yield, 23°C)	52.4	MPa	ASTM D638
Tensile Stress (Yield, 23°C)	52.0	MPa	ISO 527-2
Tensile Elongation (Break, 23°C)	50	%	ASTM D638
Tensile Strain (Break, 23°C)	50	%	ISO 527-2
Flexural Modulus (23°C)	2340	MPa	ASTM D790
Flexural Modulus (23°C)	2250	MPa	ISO 178
Flexural Strength (Yield, 23°C)	72.4	MPa	ASTM D790
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact (23°C)	560	J/m	ASTM D256
Notched Izod Impact Strength (23°C)	39	kJ/m²	ISO 180
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load			ASTM D648
0.45 MPa, Unannealed	120	°C	
Heat Deflection Temperature (0.45 MPa, Unannealed)	122	°C	ISO 75-2/B

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Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
1.8 MPa, Unannealed	100	°C	
Heat Deflection Temperature (1.8 MPa, Unannealed)	103	°C	ISO 75-2/A
Flammability	**Nominal Value**	**Unit**	**Test Method**
Flame Rating (1.50 mm)	HB		UL 94

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	104 to 110	°C
Drying Time	2.0 to 4.0	hr
Drying Time, Maximum	10	hr
Suggested Max Moisture	0.040	%
Suggested Shot Size	40 to 80	%
Rear Temperature	232 to 243	°C
Middle Temperature	238 to 260	°C
Front Temperature	243 to 271	°C
Nozzle Temperature	243 to 271	°C
Mold Temperature	65.6 to 82.2	°C
Injection Pressure	5.52 to 12.4	MPa
Injection Rate	Moderate	
Back Pressure	0.345 to 1.03	MPa
Screw Speed	40 to 60	rpm

Notes

[1] Typical properties: these are not to be construed as specifications.