Starex HR-1360

High Impact Polystyrene

Samsung, a division of Cheil Industries

IDES | Prospector

Product Description
Material with superior heat resistance and high impact that can be applied to the housing of household appliances such as TV etc., kitchen utensils, electronic parts, OA devices, leisure goods and miscellaneous goods

General			
Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific • Central America	• Europe • Latin America • North America	• South America
Features	• High Heat Resistance	• High Impact Resistance	
Uses	• Appliances	• Electrical/Electronic Applications	• Housings

Physical	Nominal Value	Unit	Test Method
Specific Gravity (Natural)	1.04	g/cm³	ASTM D792
Melt Mass-Flow Rate (MFR) (200°C/5.0 kg)	3.9	g/10 min	ASTM D1238
Molding Shrinkage - Flow	0.40 to 0.70	%	ASTM D955
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Strength [2]	30.0	MPa	ASTM D638
Tensile Elongation [3] (Break)	70	%	ASTM D638
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact (3.18 mm)	110	J/m	ASTM D256
Hardness	**Nominal Value**	**Unit**	**Test Method**
Rockwell Hardness (R-Scale)	100		ASTM D785
Thermal	**Nominal Value**	**Unit**	**Test Method**
Vicat Softening Temperature	91.0	°C	ISO 306/B
Flammability	**Nominal Value**	**Unit**	**Test Method**
Flame Rating - UL			UL 94
1.00 mm, ALL	HB		
1.50 mm, ALL	HB		
3.00 mm, ALL	HB		
Flammability Classification			IEC 60695-11-10, -20
1.00 mm	HB75		
1.50 mm	HB75		
3.00 mm	HB40		
UL File Number	E115797		
UL	**Nominal Value**	**Unit**	**Test Method**
RTI Str			UL 746
1.00 mm	50.0	°C	
1.50 mm	50.0	°C	
3.00 mm	50.0	°C	
RTI Imp			UL 746
1.00 mm	50.0	°C	
1.50 mm	50.0	°C	
3.00 mm	50.0	°C	
RTI Elec			UL 746
1.00 mm	50.0	°C	
1.50 mm	50.0	°C	
3.00 mm	50.0	°C	
Comparative Tracking Index (CTI) (PLC)	PLC 1		UL 746
Hot-wire Ignition (HWI) (PLC)			UL 746
1.50 mm	PLC 4		
3.00 mm	PLC 3		
High Amp Arc Ignition (HAI) (PLC)			UL 746
1.50 mm	PLC 0		
3.00 mm	PLC 0		

Revision History
Document Created: Tuesday, October 11, 2011
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Tuesday, October 11, 2011

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Injection	Nominal Value	Unit
Drying Temperature	80.0	°C
Drying Time	1.0 to 2.0	hr
Suggested Max Moisture	0.10	%
Rear Temperature	210	°C
Middle Temperature	200	°C
Front Temperature	180 to 190	°C
Nozzle Temperature	220	°C
Mold Temperature	40.0 to 60.0	°C
Injection Pressure	78.0	MPa
Back Pressure	1.00 to 2.00	MPa
Screw Speed	50 to 90	rpm

Notes

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

[2] 5.0 mm/min

[3] 20 mm/min

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