

SAN 90HR

Injection Molding

Description

High Transparency, Heat Resistance
Chemical Resistance

Application

Battery Case, Light Cover

Properties	Test Condition	Test Method	Unit	Typical Value
Physical				
Specific Gravity		ASTM D792	-	1.08
Molding Shrinkage (Flow), 3.2mm		ASTM D955	%	0.4~0.7
Melt Flow Rate	200 °C/5kg 220 °C/10kg 230 °C/3.8kg	ASTM D1238(G) - ASTM D1238(I)	g/10min g/10min g/10min	2 27 10
Mechanical				
Tensile Strength, 3.2mm @ Yield	50mm/min	ASTM D638	kg/cm ²	780
Tensile Elongation, 3.2mm @ Yield @ Break	50mm/min 50mm/min	ASTM D638	% %	- 9
Tensile Modulus, 3.2mm	1mm/min	ASTM D638	kg/cm ²	32,700
Flexural Strength, 3.2mm	15mm/min	ASTM D790	kg/cm ²	1,270
Flexural Modulus, 3.2mm	15mm/min	ASTM D790	kg/cm ²	38,400
IZOD Impact Strength, 6.4mm (Notched)	23 °C -30 °C	ASTM D256	kg·cm/cm kg·cm/cm	1 1
IZOD Impact Strength, 3.2mm (Notched)	23 °C -30 °C	ASTM D256	kg·cm/cm kg·cm/cm	- -
Rockwell Hardness	R-Scale	ASTM D785	-	124
Thermal				
Heat Deflection Temperature, 6.4mm (Unannealed)	18.6kg 4.6kg	ASTM D648	°C °C	92 -
Vicat Softening Temperature	5kg, 50 °C/h	ASTM D1525	°C	103
Flammability	1.6mm 2.5mm 3.2mm	UL94	class class class	HB - HB
Relative Temperature Index		UL 746B		
Electrical			°C	50
Mechanical with Impact			°C	50
Mechanical without Impact			°C	50

Note) Typical values are only for material selection purpose, and variation within normal tolerances are for various colors.

Values given should not be interpreted as specification and not be used for part or tool design.

All properties, except melt flow rate are measured on injection moulded specimens and after 48 hours storage at 23°C, 50% relative humidity.

Updated : 9-Nov-09

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Processing Guide (Injection Molding)

Processing Parameters	Unit	Value
Drying Temperature	°C	80
Drying Time	hrs	2 ~ 4
Minimum Moisture Content	%	0.01
Melt Temperature	°C	190 ~ 220
Cylinder Temperature	Rear	170 ~ 190
	Middle	180 ~ 200
	Front	190 ~ 210
Nozzle Temperature	°C	190 ~ 220
Mold Temperature	°C	40 ~ 70
Back Pressure	kg/cm ²	300 ~ 600
Screw Speed	rpm	30 ~ 60

Note) Back Pressure & Screw Speed are only mentioned as general guidelines.

These may not apply or need adjustment in specific situations such as low shot sizes, thin wall molding and gas-assist molding.

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