



ABS SG175

Injection Molding Grade

Description

Super surface gloss

Application

Electric/electronic products

Physical Specific Gravity ASTM D792 - 1.04~1.08 Molding Shrinkage (Flow), 3.2mm ASTM D955 % 0.4~0.7 Melt Flow Rate 220 ℃/10kg ASTM D1238 g/10min 33 Mechanical Tensile Strength, 3.2mm ASTM D638 kg/cm² 500 Tensile Elongation, 3.2mm ASTM D638 g/cm² 500 W Yield 50mm/min % >10 Break 50mm/min % >10 Flexural Strength, 3.2mm 15mm/min ASTM D790 kg/cm² 26,500 IZOD Impact Strength, 6.4mm ASTM D256 kg·cm/cm 20 (Notched) 23 ℃ kg·cm/cm 8	l Value	Typical V	Unit	Test Method	Test Condition	Properties
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Molding Shrinkage (Flow), 3.2mm ASTM D955 % 0.4~0.7 Melt Flow Rate 220 ℃/10kg ASTM D1238 g/10min 33 Mechanical Tensile Strength, 3.2mm ASTM D638 kg/cm² 500 Tensile Elongation, 3.2mm ASTM D638 kg/cm² 500 Tensile Elongation, 3.2mm ASTM D638 % >10 © Yield 50mm/min % >10 Elexural Strength, 3.2mm 15mm/min ASTM D790 kg/cm² 800 Flexural Modulus, 3.2mm 15mm/min ASTM D790 kg/cm² 26,500 IZOD Impact Strength, 6.4mm ASTM D256 kg·cm/cm 20 (Notched) 23 ℃ kg·cm/cm 8	~1.08	1.04~1.	-	ASTM D792		,
Melt Flow Rate 220 °C/10kg ASTM D1238 g/10min 33 Mechanical ASTM D638 @ Yield 50mm/min kg/cm² 500 Tensile Elongation, 3.2mm ASTM D638 kg/cm² 500 @ Yield 50mm/min % >10 @ Break 50mm/min % >10 Flexural Strength, 3.2mm 15mm/min ASTM D790 kg/cm² 800 Flexural Modulus, 3.2mm 15mm/min ASTM D790 kg/cm² 26,500 IZOD Impact Strength, 6.4mm ASTM D256 kg·cm/cm 20 (Notched) 23 °C kg·cm/cm 8			%			·
Tensile Strength, 3.2mm ASTM D638 @ Yield 50mm/min kg/cm² 500 Tensile Elongation, 3.2mm ASTM D638			g/10min		220 ℃/10kg	S ()
@ Yield 50mm/min kg/cm² 500 Tensile Elongation, 3.2mm ASTM D638 ————————————————————————————————————						Mechanical
Tensile Elongation, 3.2mm ASTM D638 @ Yield 50mm/min % @ Break 50mm/min % >10 Flexural Strength, 3.2mm 15mm/min ASTM D790 kg/cm² 800 Flexural Modulus, 3.2mm 15mm/min ASTM D790 kg/cm² 26,500 IZOD Impact Strength, 6.4mm ASTM D256 kg·cm/cm 20 (Notched) 23 ℃ kg·cm/cm 8 -30 ℃ kg·cm/cm 8				ASTM D638		Tensile Strength, 3.2mm
Tensile Elongation, 3.2mm ASTM D638 @ Yield 50mm/min % @ Break 50mm/min % >10 Flexural Strength, 3.2mm 15mm/min ASTM D790 kg/cm² 800 Flexural Modulus, 3.2mm 15mm/min ASTM D790 kg/cm² 26,500 IZOD Impact Strength, 6.4mm ASTM D256 kg·cm/cm 20 (Notched) 23 °C kg·cm/cm 8 -30 °C kg·cm/cm 8	00	500	ka/cm²		50mm/min	@ Yield
@ Break 50mm/min % >10 Flexural Strength, 3.2mm 15mm/min ASTM D790 kg/cm² 800 Flexural Modulus, 3.2mm 15mm/min ASTM D790 kg/cm² 26,500 IZOD Impact Strength, 6.4mm ASTM D256 kg·cm/cm 20 (Notched) 23 ℃ kg·cm/cm 8 -30 ℃ kg·cm/cm 8				ASTM D638		Tensile Elongation, 3.2mm
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IZOD Impact Strength, 6.4mm	500	26,50		ASTM D790	15mm/min	Flexural Modulus, 3.2mm
-30 °C kg·cm/cm 8				ASTM D256		IZOD Impact Strength, 6.4mm
-30 °C kg·cm/cm 8	20	20	kg·cm/cm		23 ℃	(Notched)
	8	8	kg·cm/cm		-30℃	
IZOD Impact Strength, 3.2mm ASTM D256			•	ASTM D256		IZOD Impact Strength, 3.2mm
(Notched) 23 °C kg·cm/cm 23	23	23	kg·cm/cm		23 ℃	
-30℃ kg·cm/cm 8	8	8			-30℃	
Rockwell Hardness R-Scale ASTM D785 - 110	10	110	-	ASTM D785	R-Scale	Rockwell Hardness
Thermal						Thermal
Heat Deflection Temperature, 6.4mm ASTM D648				ASTM D648		Heat Deflection Temperature, 6.4mm
(Unannealed) 18.6kg °C 86	36	86	$^{\circ}$		18.6ka	
4.6kg °C					•	(=:::::::::::::::::::::::::::::::::::::
Vicat Softening Temperature ASTM D1525				ASTM D1525		Vicat Softening Temperature
5kg, 50 ℃/h °C 94) 4	94	$^{\circ}$		5ka. 50°C/h	3 - 1
Flammability UL94				UL94	J,	Flammability
class HB	łВ	НВ	class			•
Relative Temperature Index UL 746B				UL 746B		Relative Temperature Index
Electrical °C 60	30	60	${\mathbb C}$			
Mechanical with Impact ℃ 60	30	60				Mechanical with Impact
Mechanical without Impact °C 60	30	60	°C			•
Electrical						Floatrical
Comparative Tracking Index(CTI) Solution A IEC 60112 Volts 0	<u> </u>	Λ	Volts	IFC 60112	Solution A	
Surface Resistivity IEC 60093 Ohm					Joidton	
Volume Resistivity 23°C ASTM D257 Ohm·m					23℃	· ·
Arc Resistance 23°C ASTM D495 Ohm·cm 6	<u> </u>	6				·

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

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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 molulded specimens and after 48 hours storage at 23 °C, 50% relative humidty.





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Processing Guide (Injection Molding)

Processii	ng Parameters	Unit	Value
Drying Temperature		${\mathbb C}$	70~80
Drying Time		hrs	2 ~ 4
Minimum Moisture Content		%	0.01
Melt Temperature		$^{\circ}$	210 ~ 240
Cylinder Temperature	Rear	°C	180 ~ 200
	Middle	$^{\circ}$	190 ~ 210
	Front	$^{\circ}$	200 ~ 220
Nozzle Temperature		$^{\circ}$	200 ~ 230
Mold Temperature		$^{\circ}$	40 ~ 70
Back Pressure		kg/cm ²	5 ~ 15
Screw Speed		%	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.