THE CHEMICAL BROTHERS GROUP

GLOBAL PARTNER IN BULK CHEMICALS

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Specifications: Polystyrene (SC201LV)

Applications: This polystyrene variant is utilized for producing large, transparent molded products and a range of applications including refrigerator components (like crisper trays and egg holders), toothbrushes, stationery items, ballpoint pen barrels, and medical tools such as petri dishes, tissue culture dishes, cap jars, and droppers.

Category	Property	Test Method	Test Condition	Nominal Value	Unit
Rheological	Melt Flow Index	ASTM D1238	200ºC/5Kg	4.0	gm/10 min
Thermal	Vicat Softening Point	ASTM D1525	120ºC/hr, 1 Kg	97	ºC
	Heat Deflection Temp.	ASTM D648	1.86 Mpa	79	ºC
Mechanical	Tensile Strength	ASTM D638	50 mm/min	475	kgf/cm²
	Elongation	ASTM D638	50 mm/min	2.0	%
	Flexural Strength	ASTM D790	3.2 mm	815	kgf/cm²
	Flexural Modulus	ASTM D790	3.2 mm	32605	kgf/cm²
	Izod Impact (Notched)	ASTM D256	3.2 mm	20	J/m
Flammability	Flammability	UL 94	@1.6mm	HB	-
General	Specific Gravity	ASTM D792	-	1.04	-
Processing Conditions	Processing Temperature	-	-	180-240	ºC
	Pre-drying Temperature	-	2 Hr	50-80	ºC
	Mold Temperature	-	-	40-60	ºC

End of Report*

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Specifications: Polystyrene SC201LVLT

Applications: This type of polystyrene is used for producing large, transparent molded items and a variety of applications including refrigerator components (like crisper trays and egg containers), toothbrushes, stationary items, ballpoint pen barrels, and medical equipment such as petri dishes, tissue culture dishes, cap jars, and droppers.

Category	Property	Test Method	Test Condition	Nominal Value	Unit
Rheological	Melt Flow Index	ASTM D1238	200ºC/5Kg	4.0	gm/10 min
Thermal	Vicat Softening Point	ASTM D1525	120ºC/hr, 1 Kg	97	ºC
	Heat Deflection Temperature	ASTM D648	1.86 Mpa	79	ºC
Mechanical	Tensile Strength	ASTM D638	50 mm/min	475	kgf/cm²
	Elongation	ASTM D638	50 mm/min	2.0	%
	Flexural Strength	ASTM D790	3.2 mm	815	kgf/cm²
	Flexural Modulus	ASTM D790	3.2 mm	32605	kgf/cm²
	Izod Impact (Notched)	ASTM D256	3.2 mm	20	J/m
Flammability	Flammability	UL 94	@1.6mm	HB	-
General	Specific Gravity	ASTM D792	-	1.04	-
Processing Conditions	Processing Temperature	-	-	180-240	ºC
	Pre-drying Temperature	-	2 Hr	50-80	ºC
	Mold Temperature	-	-	40-60	ºC

End of Report*

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Specifications: Polystyrene (SC202EC)

Applications: This polystyrene variant is perfect for clear product applications, including profile extrusion for clear and embossed sheets. It's also used in manufacturing pipettes, tablet packaging, bottles, ampule trays, and caps and closures.

Category	Property	Test Method	Test Condition	Nominal Value	Unit
Rheological	Melt Flow Index	ASTM D1238	200ºC/5Kg	3.0	gm/10 min
Thermal	Vicat Softening Point	ASTM D1525	120ºC/hr, 1 Kg	104	ºC
	Heat Deflection Temperature	ASTM D648	1.86 Mpa	86	ºC
Mechanical	Tensile Strength	ASTM D638	50 mm/min	520	kgf/cm²
	Elongation	ASTM D638	50 mm/min	2.0	%
	Flexural Strength	ASTM D790	3.2 mm	915	kgf/cm²
	Flexural Modulus	ASTM D790	3.2 mm	34645	kgf/cm²
	Izod Impact (Notched)	ASTM D256	3.2 mm	20	J/m
Flammability	Flammability	UL 94	@1.6mm	HB	-
General	Specific Gravity	ASTM D792	-	1.04	-
Processing Conditions	Processing Temperature	-	-	180-240	ºC
	Pre-drying Temperature	-	2.0 Hr	50-80	ºC
	Mold Temperature	-	-	40-60	ºC

End of Report*

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Specifications: Polystyrene (SC202EF)

Applications: This polystyrene variant is tailored for foam extrusion, making it well-suited for XPS insulation boards and food packaging applications. It's commonly used in creating food trays, hinged lunch boxes, instant noodle containers, clamshells, and bowls.

Category	Property	Test Method	Test Condition	Nominal Value	Unit
Rheological	Melt Flow Index	ASTM D1238	200ºC/5Kg	4.0	gm/10 min
Thermal	Vicat Softening Point	ASTM D1525	120ºC/hr, 1 Kg	104	ºC
	Heat Deflection Temperature	ASTM D648	1.86 Mpa	86	ºC
Mechanical	Tensile Strength	ASTM D638	50 mm/min	520	kgf/cm²
	Elongation	ASTM D638	50 mm/min	2.0	%
	Flexural Strength	ASTM D790	3.2 mm	915	kgf/cm²
	Flexural Modulus	ASTM D790	3.2 mm	34645	kgf/cm²
	Izod Impact (Notched)	ASTM D256	3.2 mm	20	J/m
Flammability	Flammability	UL 94	@1.6mm	HB	-
General	Specific Gravity	ASTM D792	-	1.04	-
Processing Conditions	Processing Temperature	-	-	180-240	ºC
	Pre-drying Temperature	-	2.0 Hr	50-80	ºC
	Mold Temperature	-	-	-	ºC

End of Report*

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Specifications: Polystyrene (SC203EL)

Applications: This polystyrene type is used for audio cassette housings and covers, medical applications such as disposable infusion trays and screw vials, as well as for manufacturing crystalware, mugs, trays, bowls, pen stands, fruit bowls, service trays, and thin-walled cups. It's also ideal for providing a glossy cap layer on HIPS sheets.

Category	Property	Test Method	Test Condition	Nominal Value	Unit
Rheological	Melt Flow Index	ASTM D1238	200ºC/5Kg	8.0	gm/10 min
Thermal	Vicat Softening Point	ASTM D1525	120ºC/hr, 1 Kg	98	ºC
	Heat Deflection Temperature	ASTM D648	1.86 Mpa	80	ºC
Mechanical	Tensile Strength	ASTM D638	50 mm/min	475	kgf/cm²
	Elongation	ASTM D638	50 mm/min	2.0	%
	Flexural Strength	ASTM D790	3.2 mm	775	kgf/cm²
	Flexural Modulus	ASTM D790	3.2 mm	31590	kgf/cm²
	Izod Impact (Notched)	ASTM D256	3.2 mm	20	J/m
Flammability	Flammability	UL 94	@1.6mm	HB	-
General	Specific Gravity	ASTM D792	-	1.04	-
Processing Conditions	Processing Temperature	-	-	180-240	ºC
	Pre-drying Temperature	-	2.0 Hr	50-80	ºC
	Mold Temperature	-	-	40-60	ºC

End of Report*

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Specifications: Polystyrene (SC206)

Applications Used in medical devices like blood sample collectors, test tubes, petri dishes, and PS bottles. Also utilized for crafting beads, bangles, gift articles, trays, combs, crystal ware, paperweights, and various household items.

Category	Property	Test Method	Test Condition	Nominal Value	Unit
Rheological	Melt Flow Index	ASTM D1238	200ºC/5Kg	12.0	gm/10 min
Thermal	Vicat Softening Point	ASTM D1525	120ºC/hr, 1 Kg	99	ºC
	Heat Deflection Temperature	ASTM D648	1.86 Mpa	80	ºC
Mechanical	Tensile Strength	ASTM D638	50 mm/min	465	kgf/cm²
	Elongation	ASTM D638	50 mm/min	2.0	%
	Flexural Strength	ASTM D790	3.2 mm	775	kgf/cm²
	Flexural Modulus	ASTM D790	3.2 mm	31590	kgf/cm²
	Izod Impact (Notched)	ASTM D256	3.2 mm	20	J/m
Flammability	Flammability	UL 94	@1.6mm	HB	-
General	Specific Gravity	ASTM D792	-	1.04	-
Processing Conditions	Processing Temperature	-	-	180-240	ºC
	Pre-drying Temperature	-	2.0 Hr	50-80	ºC
	Mold Temperature	-	-	40-60	ºC

End of Report*

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Specifications: Polystyrene (SC206HT)

Applications: Used in medical devices such as sample collectors, test tubes, petri dishes, and PS bottles. Also applied in crafting beads, bangles, gift articles, trays, combs, crystal ware, paperweights, and various household items.

Property Category	Property	Test Method	Test Condition	Nominal Value	Unit
Rheological Properties	Melt Flow Index	ASTM D1238	200ºC/5Kg	12.0	gm/10 min
Thermal Properties	Vicat Softening Point	ASTM D1525	120ºC/hr, 1 Kg	99	ºC
	Heat Deflection Temperature	ASTM D648	1.86 Mpa	80	ºC
Mechanical Properties	Tensile Strength	ASTM D638	50 mm/min	465	kgf/cm²
	Elongation	ASTM D638	50 mm/min	2.0	%
	Flexural Strength	ASTM D790	3.2 mm	775	kgf/cm²
	Flexural Modulus	ASTM D790	3.2 mm	31590	kgf/cm²
	Izod Impact (Notched)	ASTM D256	3.2 mm	20	J/m
Flammability	Flammability	UL 94	@1.6mm	HB	-
General Properties	Specific Gravity	ASTM D792	-	1.04	-
Processing Conditions	Processing Temperature	-	-	180-240	ºC
	Pre-drying Temperature	-	2.0 Hr	50-80	ºC
	Mold Temperature	-	-	40-60	ºC

End of Report*