SolutionPartner



GPPS



HIPS



CPS





GPPS



Refrigerator Parts



Crisper Tray



Extruded Sheets



Foamed PS



Pen Barrels



CD Jewel Case



Confectionery Case



Disposable glasses



Water Purifier

Typical Properties

Property	ASTM	Test Condition	Unit	LGG 104	LGG 1044	LGG 1045	LGG 1046	LGG 1042	LGG 1043	LGG 105	LGG 108
MECHANICAL						***					
Tensile Strength	D 638	6.3 mm/min	kg/cm ²	450	450	450	450	450	470	430	400
Elongation	D 638	6.3 mm/min	%	, 5	5	5	5	5	5	2	2
Flexural Strength	D 790	1.3 mm/min	kg/cm ²	900	900	900	900	900	1100	850	800
Flexural Modulus	D 790	1.3 mm/min	kg/cm ²	36000	36000	36000	36000	36000	38000	34000	32000
Izod Impact, Notched	D 256	6.4 mm	kg-cm / cm notch	1.2	1.2	1.2	1.2	1.2	1.3	1.1	1.0
Rockwell Hardness	D 785	-	R Scale	115	115	115	115	115	116	115	115
THERMAL & OPTICAL											
VSP	D 1525	120ºC/1hr/ 1kg	² C	96	96	96	96	96	98	95	94
HDT	D 648	Un annealed	^o C	85	85	85	85	85	85	85	78
Transmittance	D 1003	-	%	95	95	95	95	95	95	95	95
RHEOLOGICAL	•					r					
Melt Flow Index	D 1238 G	200ºC/5 kg	gm/10 min	5.8	5.8	5.8	5.8	5.7	3.0	9.0	16.0
GENERAL	•	10	-	•					***		
Shrinkage	D 955	-	%	0.4 - 0.6	0.4 - 0.6	0.4 - 0.6	0.4 - 0.6	0.4 - 0.6	0.4 - 0.6	0.4 - 0.6	0.4 - 0.6
Sp. Gravity	D 792	-	-	1.04	1.04	1.04	1.04	1.04	1.04	1,02	1.02
Flammability	UL 94	-	Rating	HB*	НВ	НВ	НВ	НВ	НВ	НВ	НВ
		•	Flow	Medium	Medium	Medium	Medium	Medium	Low	Normal	High
Characteristics Tinge				Less Blue	Aqua clear	Diamond clear	Water clear	Least Blue	Least Blue	Medium Blue	High Blue
Major Applications				Refrigerator parts, Crisper trays, Foam Sheets, Water purifier parts	Refrigerator components, Crisper tray, Chiller tray.	Refrigerator components, Crisper tray, Chiller tray.	Refrigerator components, Crisper tray, Chiller tray, Water purifier parts	Extruded sheets, Advertising boards, Window panels	Extruded foam sheet for disposables.	Stationery, Wall clocks, Cap layer, Novelties, Bead bangles, CD Jewel Case, Household applications	Hand Injection Molding, Master Batches, Cap layer

^{*} Horizontal Burning

[•] Conforms to the FDA Title 21CFR section 177.1640 of US Food and Drug Administration. (FDA) regarding use of Polystyrene in food contact application and the migration of the constituents is within tolerance limits, as per US FDA – 176.170, UL File No. E 191480.

All grades are RoHS certified.

[•] The values of properties in the above table have been obtained from the test specimens manufactured under controlled conditions of injection molding.

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HIPS



Refrigerator liner



Air Conditioner



LCD Back Cover



UPS



Weighing Scale



Water Geyser



Toys



Wet Grinder



Washing Machine

Typical Properties

Property	ASTM	Test Condition	Unit	LGH 301	LGH 3012	LGH 302	LGH 306	LGH 314	LGH 309
MECHANICAL									
Tensile Strength	D 638	50 mm/min	kg/cm ²	310	310	300	250	230	230
Elongation	D 638	50 mm/min	%	35	40	50	50	50	75
Flexural Strength	D 790	1.3 mm/min	kg/cm ²	450	450	440	350	350	340
Flexural Modulus	D 790	1.3 mm/min	kg/cm ²	25000	25000	24000	22000	22000	18000
Izod Impact, Notched	D 256	6.4 mm	kg-cm / cm notch	7.5	9.5	8.0	8.5	8.5	10.0
Rockwell Hardness	D 785	-	R Scale	103	103	93	93	93	93
Gloss	D 2457	-	%	95	95	-	-	-	-
THERMAL									
VSP	D 1525	120°C/1hr/ 1kg	°C	97	97	97	95	94	98
HDT	D 648	Un annealed	°C	82	82	82	80	80	80
RHEOLOGICAL									
Melt Flow Index	D 1238 G	200°C/5 kg	gm/10 min	5.5	5.5	5.0	9.5	11.0	3.0
GENERAL									
Shrinkage	D 955	-	%	0.4-0.8	0.4-0.8	0.4-0.8	0.4-0.8	0.4-0.8	0.4-0.8
Sp. Gravity	D 792	-	-	1.03	1.03	1.03	1.03	1.02	1.03
Flammability	UL 94	-	Rating	HB*	НВ	НВ	НВ	НВ	НВ
	High Gloss	High Gloss High Impact	Universal Grade	Medium Flow	High Flow	ESCR			
	Air Conditioner parts, Refrigerator parts, Washing machine panels, Cooler bodies, Geyser body.	Washing machine panel, Wash lid, spin lid and refrigerator table tops, Vacuum cleaner housing, Air Cooler front panel. Mixers, Geysers, Cap layer.	Electronics, Novelties, Stationery, Disposables,	Electronics	TV cabinets especially in GAIN application, High flow length molds,	Refrigerator liners, Containers for food & diary packaging specially for fatty acid, Yoghurt.			

^{*} Horizontal Burning

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Pre-colored Grades

Typical Properties

				High Gloss Pre-colored HIPS	FR	FTPS	
Property	ASTM	Test Condition	Unit		LGS - 5Z500 FR White	LGS - 5Z581 FR Black	TH - 428
MECHANICAL							
Tensile Strength	D 638	50 mm/min	kg/cm ²	280	220	220	
		6.3 mm/min	kg/cm ²		-	-	400
	D 638	50 mm/min	%	40	40	40	-
Elongation		6.3 mm/min	%		-	-	15
Flexural Strength	D 790	1.3 mm/min	kg/cm ²	440	400	400	650
Flexural Modulus	D 790	1.3 mm/min	kg/cm ²	24000	24000	24000	26000
Izod Impact , Notched	D 256	6.4 mm	kg-cm / cm notch	8.0	7.0	7.0	2.0
Transmittance	D 1003	-	%	-	•	-	90
THERMAL							
VSP	D 1525	120ºC/1hr/ 1kg	ºC	96	96	96	93
HDT	D 648	Un annealed	°C	78	78	78	-
RHEOLOGICAL							
Melt Flow Index	D 1238 G	200ºC/5 Kg	gm/10 min	6.0	6.0	6.0	6.5
GENERAL		3					
Shrinkage	D 955	-	%	0.4 - 0.8	0.4 - 0.8	0.4 - 0.8	0.4 - 0.8
Flammability	UL 94	-	Rating	HB*	V ₀	V ₀	НВ
					UL File N	o : E 191480	
	Characte	ristics		High Gloss HIPS	RoHS Compliance Flame retardant HIPS		Flexible Transparent Polystyrene
	Major Ap	plications		Refrigerator, AC, Washing machine, Water purifier parts, Mixer, Grinder.	Flame Retardant Electrical & Electronic appliances, TV back cover, Circuit Boards, Relay Boxes etc.		Flexible Hangers Transparent lids Disposables.

^{*} Horizontal Burning

Note: Customized pre-colored grades in GPPS, Normal HIPS and UV stabilized grades are also available.

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PROCESSING GUIDELINES

Pre-Drying

Pre-Drying generally not required. In case of Pre-colored Polystyrene or when using Masterbatch, pre heating for 2-3 hours at 60-80°C may be required to avoid silver streaks or surface defects due to hygroscopic nature of Masterbatch or any other additives.

Typical Processing Conditions

Injection molding

Barrel temperature (°C)	Feed Zone	160 - 180		
	Compression Zone	190 - 200		
	Metering Zone	200 - 215		
	Nozzle	215 - 220		
Mould temperature (^o C)		40 - 60		

Extrusion

Barrel temperature (°C)	Feed Zone	150 - 180		
	Compression Zone	200 - 220		
	Metering Zone			
Die Head temperature (°C	40 - 60			

Product Safety

Processing may release fumes, which may be irritating to eyes. Sufficient ventilation should be provided in the working area. If it causes eye discomfort, use a full-face respirator. Handling & fabrication of plastic resin may result in the generation of dust. Dust resulting from sawing, filing & sanding of plastic parts in post molding operations may cause irritation to eyes. While performing these operations, use an approved personal protective equipments. If irritation continues, consult physician.

Other Information

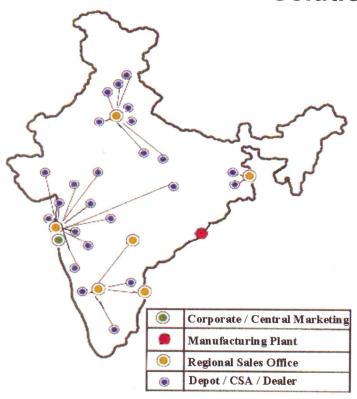
Packing

Supplied as (3x3 mm) cylindrical shaped granules in 25 Kg PP laminated woven bags.

Storage & Handling Precautions

Should be stored in a dust free, dry and cool environment. Avoid direct exposure to sunlight.

SolutionPartner



Contact us

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