



DIAREX®

Polystyrene (PS) under the brand Diarex is produced by GC Styrenics Co., Ltd. We offer two categories of PS resin: General Purpose Polystyrene (GPPS) and High Impact Polystyrene (HIPS).

The capacity of GPPS and HIPS are 60,000 MTA and 30,000 MTA, totally 90,000 MTA. Furthermore, we offer a wide range of Diarex grade with various properties for using in injection molding or extrusion process.



High Impact Polystyrene (HIPS) Typical Properties:

Properties	Test Method (ASTM)	Unit	Grade		
			H350	H350E	H950
MFR (200 °C, 5 kg)	D1238	g/10 min	3.5	2.6	3
Tensile Strength at Yield*	D638	kg/cm ²	295	256	345
		lb/in ²	4200	3600	4900
Tensile Elongation*	D638	%	60	57	50
Flexural Strength*	D790	kg/cm ²	420	359	457
		lb/in ²	6000	5100	6500
Flexural Modulus (x 10,000)*	D790	kg/cm ²	1.9	1.8	1.8
		lb/in ²	27	26	26
Izod Impact Strength*	D256	kg.cm/cm	11	11	11
		ft.lb/in	2	2	2
Rockwell Hardness*	D785	Scale	R112	R112	R112
Vicat Softening Point (1 kg)*	D1525	°C	104	101	105
		°F	219	213	221
Deflection Temperature* (18.56 kg/cm ²)	D648	°C	78	76	79
		°F	172	169	174
Gloss (60 °C Gardner)	D523	%	-	-	90
Underwriter Laboratory*	-	-	UL-94HB	UL-94HB	UL-94HB
Type			HIPS High Impact	HIPS High Impact	HIPS High Gloss
Application			Household appliance, Toys, Office automation apparatus, Stationary, Audio enclosure, Media enclosure, Small appliance, Refrigerator accessories	Food container, Household appliance, Seeding tray	Household appliance, Office automation apparatus (printer), Air condition, Refrigerator accessories

*Data based on injection molding test pieces.



General Purpose Polystyrene (GPPS) Typical Properties:

Properties	Test Method (ASTM)	Unit	Grade		
			THF77	THH102	THH103
MFR (200 °C, 5 kg)	D1238	g/10 min	8.4	2.6	1.7
Tensile Strength at Break*	D638	kg/cm ²	470	530	543
		lb/in ²	6700	7500	7700
Tensile Elongation*	D638	%	2	2.5	2.6
Izod Impact Strength*	D256	kg.cm/cm	2.2	2.2	2.2
		ft.lb/in	0.4	0.4	0.4
Rockwell Hardness*	D785	Scale	M80	M80	M80
Vicat Softening Point (1 kg)*	D1525	°C	101	106	107
		°F	214	223	225
Deflection Temperature* (18.56 kg/cm ²)	D648	°C	78	81	82
		°F	172	178	180
Underwriter Laboratory*	-	-	UL-94HB	UL-94HB	UL-94HB
Type			GPPS Standard	GPPS High Heat	GPPS High Heat
Application			Refrigerator accessories, Houseware & household appliance, Food container, Stationary, Small appliance, Blending with HIPS	Refrigerator accessories, Stationary, Houseware & household appliance	Packaging, Stationary, PS foam sheet, Oriented PS sheet

*Data based on injection molding test pieces.

The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose. All above values are typical values, not to be construed as specification.

