



### Properties of General Purpose Polystyrene (GPPS)

Property	Unit	GPPS 116	GPPS 123	GPPS 146	GPPS 153A	GPPS 153D	GPPS 152D	GPPS 251	GPPS 232	GPPS 321	GPPS 350	GPPS 352
Melt Flow Volume	Cm <sup>3</sup> /10 min	23	10	23	11	7.4	5	2.5	3.8	3.1	1.4	4.5
Tensile Strength at Break	Mpa	40	50	40	52	52	53	55	55	55	58	56
Charpy Impact Strength	KJ/M <sup>2</sup>	9	10	5	8	8	11	14	15	16	16	14
Vicat Softening Temperature	°C	85	88	100	99	102	100	101	93	90	102	99
Elongation	%	1.5	2.0	1.5	2	2.0	2.0	3.0	3.0	2	3	3
Flexural Strength	Mpa	70	80	70	75	75	90	100	100	100	100	95
Tensile Modulus	Mpa	3100	3200	3200	3300	3300	3300	3300	3300	3300	3300	3300
Specific Gravity	-	1.04	1.04	1.05	1.05	1.05	1.05	1.05	1.04	1.04	1.05	1.05
Deflection Temperature (Under Load)	°C	75	78	88	89	90	90	90	84	81	90	90
Residual Monomer	PPM	200	200	200	200	200	200	200	200	200	200	200

**Note:** The above data represent average values and are believed to be reliable . They are given for information; no guarantee of their accuracy is made

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#### Supply Form:

E-Styrenics grades are supplied as cylindrical pellets , packed in 25 kg plastic bags, 60 Bags per Pallet, 1.5 MT Per Pallet

### Processing of General Purpose Polystyrene (GPPS)

Grade	Characteristics	Injection Moulding	Extrusion
<b>Preferred mode of processing</b>			
GPPS - 116	Very easy melt flow , standard heat resistance	●	●
GPPS - 123	Improved heat resistance , easy melt flow , good mechanical strength	●	●
GPPS - 153D	High heat resistance , easy melt flow , no internal lubricants		●
GPPS - 152D	High heat resistance , easy melt flow , no internal lubricants		●
GPPS - 251	Improved heat resistance , exceptional mechanical strength , good melt flow	●	●
GPPS - 232	High heat resistance , good mechanical strength	●	●
GPPS - 146	Very easy melt flow, high heat resistance		●
GPPS - 153A	High heat resistance, easy melt flow, antistatic		●



### Properties of High Impact Polystyrene (HIPS)

Property	Unit	HIPS 416	HIPS 442	HIPS 514	HIPS 613	HIPS 622	HIPS 641	HIPS Iceberg
Melt Flow Volume	Cm <sup>3</sup> /10 min	22	5.7	10	9.3	4.8	2.5	4.3
Tensile Strength at Break	Mpa	30	28	26	23	26	28	26
Charpy Impact Strength	KJ/M <sup>2</sup>	5	7	8	10	10	10	10
Vicat Softening Temperature	°C	80	94	85	81	90	96	89
Elongation	%	35	45	50	50	50	40	65
Flexural Strength	Mpa	46	45	40	36	42	44	42
Tensile Modulus	Mpa	2600	2450	2100	1750	1700	1800	1450
Specific Gravity	-	1.04	1.04	1.03	1.03	1.03	1.03	1.03
Deflection Temperature (Under Load)	°C	71	85	74	70	82	87	80
Residual Monomer	PPM	200	200	200	200	200	200	200

**Note:** The above data represent average values and are believed to be reliable. They are given for information; no guarantee of their accuracy is made.

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**Supply Form:**

E-Styrenics grades are supplied as cylindrical pellets, packed in 25 kg plastic bags, 60 Bags per Pallet, 1.5 MT Per Pallet

### Processing of High Impact Polystyrene (HIPS)

Grade	Characteristics	Injection Moulding	Extrusion
<b>Preferred mode of processing</b>			
HIPS - 416	Medium impact, very easy melt flow, high rigidity	●	
HIPS - 442	Medium impact, high heat resistance	●	●
HIPS - 514	Impact, easy melt flow	●	
HIPS - 622	High impact, improved heat resistance		●
HIPS - 641	High impact, high heat resistance		●
HIPS - 613	High impact, very good flow properties	●	●