

General Purpose Polystyrene, POLYREX[®] Characteristics

April 27, 2012

Properties	Test Method	Test Condition	Unit	PG-22	PG-33	PG-80N	PG-80	PG-383
Tensile Strength	ASTM D638	3mm, 6mm/min	Kg/cm ²	425	460	500	500	550
Tensile Elongation	ASTM D638	3mm, 6mm/min	%	2	2	2	2	2
Flexural Strength	ASTM D790	6mm, 2.8 mm/min	Kg/cm ²	540	670	680	690	820
Flexural Modulus	ASTM D790	6mm, 2.8 mm/min	Kg/cm ²	31000	31000	31000	31000	33000
Izod Impact Strength	ASTM D256 (Notched)	6mm, 23°C	Kg-cm/cm	1.4	1.6	1.7	1.7	1.7
		3mm, 23°C		1.5	1.7	1.8	1.8	1.8
Melt Flow Index	ASTM D1238	200°C, 5Kg	g/10min	17.5	8	5.5	4	2.2
		220°C, 10Kg		-	22	13	11	8.5
Hardness	ASTM D785	-	M Scale	74	77	79	80	82
Specific Gravity	ASTM D792	23°C	-	1.05	1.05	1.05	1.05	1.05
Vicat Softening Temp.	ASTM D1525	3mm, 50°C/hr	°C	87	94	96	97	105
Heat Distortion Temp.	ASTM D648	Annealed	°C	79	87	93	94	99
		Unannealed		75	79	82	84	89
Flammability	UL 94	-	-	-	1.6mm, HB	1.6mm, HB	1.6mm, HB	1.6mm, HB

Notes : These are typical properties only and are not to be construed as specifications. Users should confirm results by their own tests

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