

SORVEX (100-600) PBT SPEC SHEET

PBT	SORVEX 100 (1200-211E)	SORVEX 200 (1200-211D)	SORVEX 300 (1200-211L)	SORVEX 400 (1200-211M)	SORVEX 500 (1100-211D)	SORVEX 600 (1100-211L)	Unit	Test method ASTM
Intrinsic Viscosity	0.68±0.015	0.75±0.015	0.79±0.015	0.83±0.015	0.88±0.015	0.94±0.015	dl/gr	D2857
Melting Flow Index (235C×2.16kgf)	105-140	62-72	50-60	42-49	32-38	23-29	g/10 min	D1238
Carboxyl End Groups	< /= 25	< /= 25	< /= 25	< /= 25	< /= 25	< /= 25	meq/kg	CCP
Color L	> /= 85	> /= 85	> /= 85	> /= 85	> /= 84	> /= 85	-	CCP
Color b	< /= 2	< /= 2	< /= 2	< /= 2	< /= 2.8	< /= 2	-	
Specific gravity	1.30-1.32	1.30-1.32	1.30-1.32	1.30-1.32	1.30-1.32	1.30-1.32	-	D792
Melting point	225±2	225±2	225±2	225±2	225±2	225±2	C	DSC
Coef. of linear thermal expansion	9	9	9	9	9	9	10-5 cm/cm C	D696
Heat deflection temperature under load:								
--- 18.6 kg/cm2	60	60	60	60	60	60	C	D648
--- 4.6 kg/cm2	155	155	155	155	155	155	C	D648
Moisture absorption (24h)	0.06	0.06	0.06	0.06	0.06	0.06	%	D570
Flammability acc. To UL94 (1.6mm)	HB	HB	HB	HB	HB	HB	-	UL94
Tensile strength	500-600	500-600	500-600	500-600	500-600	500-600	kg/cm2	D638
Tensile elongation	> /= 30	> /= 30	> /= 30	> /= 50	> /= 50	> /= 90	%	D638
Flexural strength	800-900	800-900	800-900	800-900	800-900	800-900	kg/cm2	D790
Flexural modulus	23000	23000	23000	23000	23000	23000	kg/cm2	D790
Izod impact strength - notched 1/4"	> /= 4.0	> /= 4.0	> /= 4.0	> /= 4.5	> /= 4.5	> /= 4.5	kg-cm/cm	D256
Hardness - rockwell	85-90	85-90	85-90	85-90	85-90	85-90	M	D785
Dielectric strength, 2mm thickness	> /= 20	> /= 20	> /= 20	> /= 20	> /= 20	> /= 20	KV/mm	D149
Volume resistivity	> /= 10 ¹⁵	> /= 10 ¹⁵	> /= 10 ¹⁵	> /= 10 ¹⁵	> /= 10 ¹⁵	> /= 10 ¹⁵	Ω-cm	D257
Surface resistivity	> /= 10 ¹³	> /= 10 ¹³	> /= 10 ¹³	> /= 10 ¹³	> /= 10 ¹³	> /= 10 ¹³	Ω	D257
Dielectric constant	3.3	3.3	3.3	3.3	3.3	3.3	60Hz	D150
Dielectric dissipation factor	0.001	0.001	0.001	0.001	0.001	0.001	60Hz	D150
Arc resistance	120	120	120	120	120	120	SEC	D495

SORVEX (700-1200) PBT SPEC SHEET



PBT	SORVEX 700 (1100-211M)	SORVEX 800 (1100-211MB)	SORVEX 900 (1100-211H)	SORVEX 1000 (1100-211S)	SORVEX 1100 (1100-211XG)	SORVEX 1200 (1100-211X)	Unit	Test method ASTM
Intrinsic Viscosity	1.00±0.015	1.06±0.015	1.10±0.02	1.20±0.02	1.26±0.02	1.3±0.02	dl/gr	D2857
Melting Flow Index (235C×2.16kgf)	18-22	15-18	11-14	8-10	4-9	4-7	g/10 min	D1238
Carboxyl End Groups	</= 30	</= 30	</= 30	</= 30	33 - 40	</= 35	meq/kg	CCP
Color L	>/= 85	>/= 85	>/= 85	>/= 85	>/= 85	>/= 85	-	CCP
Color b	</= 2.0	</= 2.0	</= 3.0	</= 3.0	</= 4.0	</= 3.0	-	
Specific gravity	1.30-1.32	1.30-1.32	1.30-1.32	1.30-1.32	1.30-1.32	1.30-1.32	-	D792
Melting point	225±2	225±2	225±2	225±2	225±2	225±2	C	DSC
Coef. of linear thermal expansion ⁹	9	9	9	9	9	9	10-5 cm/cm C	D696
Heat deflection temperature under load:								
--- 18.6 kg/cm ²	60	60	60	60	60	60	C	D648
--- 4.6 kg/cm ²	155	155	155	155	155	155	C	D648
Moisture absorption (24h)	0.06	0.06	0.06	0.06	0.06	0.06	%	D570
Flammability acc. To UL94 (1.6mm)	HB	HB	HB	HB	HB	HB	-	UL94
Tensile strength	500-600	500-600	500-600	500-600	500-600	500-600	kg/cm ²	D638
Tensile elongation	>/= 120	>/= 120	>/= 150	>/= 180	>/= 200	>/= 200	%	D638
Flexural strength	800-900	800-900	800-900	800-900	800-900	800-900	kg/cm ²	D790
Flexural modulus	23000	23000	23000	23000	23000	23000	kg/cm ²	D790
Izod impact strength - notched 1/4"	>/= 4.5	>/= 4.5	>/= 5.5	>/= 6.0	>/= 6.0	>/= 6.0	kg-cm/cm	D256
Hardness - rockwell	85-90	85-90	85-90	85-90	85-90	85-90	M	D785
Dielectric strength, 2mm thickness	>/= 20	>/= 20	>/= 20	>/= 20	>/= 20	>/= 20	KV/mm	D149
Volume resistivity	>/= 10 ¹⁵	>/= 10 ¹⁵	>/= 10 ¹⁵	>/= 10 ¹⁵	>/= 10 ¹⁵	>/= 10 ¹⁵	Ω-cm	D257
Surface resistivity	>/= 10 ¹³	>/= 10 ¹³	>/= 10 ¹³	>/= 10 ¹³	>/= 10 ¹³	>/= 10 ¹³	Ω	D257
Dielectric constant	3.3	3.3	3.3	3.3	3.3	3.3	60Hz	D150
Dielectric dissipation factor	0.001	0.001	0.001	0.001	0.001	0.001	60Hz	D150
Arc resistance	120	120	120	120	120	120	SEC	D495