

Epraform® PC Scratch resistant

Polycarbonate sheet with a silicon-based hard coating on one or two sides for glazing applications. The material has good scratch resistant and has a very high impact resistance with improved weather resistance and chemical resistance as well as good protection against wear. It is good aging resistance, high brightness and is reasonably good chemical resistance.

Flammability UL94 HB Electrical properties Dielectric dissipation (at 1MHz) ISO 60250 n/a Ω Electric strength ISO 60243 n/a kV/mm	General properties	Test method	Value	Unit
Water absorption in Air (23°C / 50% RH) ISO 62 % Water absorption in Air (23°C / 100% RH) ISO 62 0,15 % Resistance to hot water n/a + + Weather resistance n/a - - Light transmission ASTM D1003 n/a % Refractive index ISO 489 n/a * Mechanical properties Elongation at break: ISO 527 110 % Ball indention hardness ISO 2039 n/a MPa Tensile modules of elasticity ISO 527 2300 MPa Charpy impact strength - notched ISO 179 10 kJ/m2 Charpy impact strength - unnotched ISO 179 No Break kJ/m2 Compressive stress at 1% n/a n/a n/a MPa Coefficient of friction n/a 0,5-0,6 *C Thermal properties Melting temperature n/a 150 °C Max. allowable service temp (short period) n/a 115	ISO code:	ISO 1183		
Water absorption in Air (23°C / 100% RH) ISO 62 0,15 % Resistance to hot water n/a + Weather resistance n/a - Light transmission ASTM D1003 n/a % Refractive index ISO 489 n/a Mechanical properties Elongation at break: ISO 527 110 % Ball indention hardness ISO 2039 n/a MPa Tensile modules of elasticity ISO 527 2300 MPa Charpy impact strength - notched ISO 179 10 kJ/m2 Charpy impact strength - unnotched ISO 179 No Break kJ/m2 Compressive stress at 1% n/a n/a n/a MPa Coefficient of friction n/a 0,5-0,6 Thermal properties Melting temperature n/a 150 °C Max. allowable service temp (short period) n/a 135 °C Max. allowable service temp (long period) n/a 115 °C Min. servi	Density:	ISO 1183-1	1,2	g/cm3
Resistance to hot water n/a + Weather resistance n/a - Light transmission ASTM D1003 n/a % Refractive index ISO 489 n/a Mechanical properties Elongation at break: ISO 527 110 % Ball indention hardness ISO 2039 n/a MPa Tensile modules of elasticity ISO 527 2300 MPa Charpy impact strength - notched ISO 179 10 kJ/m2 Charpy impact strength - unnotched ISO 179 No Break kJ/m2 Compressive stress at 1% n/a n/a MPa Coefficient of friction n/a 0,5-0,6 Thermal properties Melting temperature n/a 150 °C Max. allowable service temp (short period) n/a 135 °C Max. allowable service temp (long period) n/a 115 °C Min. service temperature n/a -100 °C Coefficient of linear expansion	Water absorption in Air (23°C / 50% RH)	ISO 62		%
Light transmission	Water absorption in Air (23°C / 100% RH)	ISO 62	0,15	%
Light transmission Refractive index ISO 489 Refractive index ISO 527 ISO 527 ISO 527 ISO 2039 Refractive index ISO 2039 Refractive index ISO 527 ISO 527 ISO 527 ISO 527 ISO 527 ISO 527 ISO 627 ISO 179 Refractive index ISO 60250 Refractive index ISO 60243 Refractive index ISO 60250 Ref	Resistance to hot water	n/a	+	
Refractive index ISO 489 n/a Mechanical properties Elongation at break: ISO 527 110 % Ball indention hardness ISO 2039 n/a MPa Tensile modules of elasticity ISO 527 2300 MPa Charpy impact strength - notched ISO 179 10 kJ/m2 Charpy impact strength - unnotched ISO 179 No Break kJ/m2 Compressive stress at 1% n/a n/a MPa Coefficient of friction n/a 0,5-0,6 Thermal properties Melting temperature n/a 150 °C Max. allowable service temp (short period) n/a 135 °C Max. allowable service temp (long period) n/a 115 °C Min. service temperature n/a -100 °C Coefficient of linear expansion n/a 70 x10 -6 m/(m* Flammability UL94 HB Electrical properties Dielectric dissipation (at 1MHz) ISO 60250 n/a Q Electri	Weather resistance	n/a	-	
Mechanical properties Elongation at break: ISO 527 110 % Ball indention hardness ISO 2039 n/a MPa Tensile modules of elasticity ISO 527 2300 MPa Charpy impact strength - notched ISO 179 10 kJ/m2 Charpy impact strength - unnotched ISO 179 No Break kJ/m2 Compressive stress at 1% n/a n/a MPa Coefficient of friction n/a 0,5-0,6 Thermal properties Melting temperature n/a 150 °C Max. allowable service temp (short period) n/a 135 °C Max. allowable service temp (long period) n/a 115 °C Min. service temperature n/a -100 °C Coefficient of linear expansion n/a 70 x10 -6 m/(m* Flammability UL94 HB Electrical properties Dielectric dissipation (at 1MHz) ISO 60250 n/a A Electric strength ISO 60243 n/a kV/mm	Light transmission	ASTM D1003	n/a	%
Elongation at break: Ball indention hardness ISO 2039 n/a MPa Tensile modules of elasticity ISO 527 2300 MPa Charpy impact strength - notched ISO 179 Charpy impact strength - unnotched ISO 179 No Break KJ/m2 Compressive stress at 1% n/a Coefficient of friction n/a MPa Coefficient of friction Thermal properties Melting temperature n/a Max. allowable service temp (short period) Max. allowable service temp (long period) n/a Min. service temperature n/a To Coefficient of linear expansion Flammability LI94 Electrical properties Dielectric dissipation (at 1MHz) Electric strength ISO 60250 n/a NA MPa MPa Coefficient of linear synamics N/a SO 60243 N/a KV/mm	Refractive index	ISO 489	n/a	
Ball indention hardness ISO 2039 n/a MPa Tensile modules of elasticity ISO 527 2300 MPa Charpy impact strength - notched ISO 179 No Break KJ/m2 Charpy impact strength - unnotched ISO 179 No Break KJ/m2 Compressive stress at 1% n/a Coefficient of friction n/a MPa Coefficient of friction n/a MPa Coefficient of friction n/a 150 °C Max. allowable service temp (short period) n/a 115 °C Min. service temperature n/a Coefficient of linear expansion n/a Flammability UL94 HB Electrical properties Dielectric dissipation (at 1MHz) Electric strength ISO 60250 n/a N/a N/a N/a N/a N/a N/a N/a	Mechanical properties			
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Charpy impact strength - notched ISO 179 10 kJ/m2 Charpy impact strength - unnotched ISO 179 No Break kJ/m2 Compressive stress at 1% n/a n/a n/a MPa Coefficient of friction n/a 0,5-0,6 Thermal properties Melting temperature n/a 150 °C Max. allowable service temp (short period) n/a 135 °C Max. allowable service temp (long period) n/a 115 °C Min. service temperature n/a -100 °C Coefficient of linear expansion n/a 70 x10 -6 m/(m* Flammability UL94 HB Electrical properties Dielectric dissipation (at 1MHz) ISO 60250 n/a Ω Electric strength ISO 60243 n/a kV/mm	Ball indention hardness	ISO 2039	n/a	MPa
Charpy impact strength - unnotched ISO 179 No Break kJ/m2 Compressive stress at 1% n/a n/a MPa Coefficient of friction n/a 0,5-0,6 Thermal properties Melting temperature n/a 150 °C Max. allowable service temp (short period) n/a 135 °C Max. allowable service temp (long period) n/a 115 °C Min. service temperature n/a -100 °C Coefficient of linear expansion n/a 70 x10 -6 m/(m* Flammability UL94 HB Electrical properties Dielectric dissipation (at 1MHz) ISO 60250 n/a Ω Electric strength ISO 60243 n/a kV/mm	Tensile modules of elasticity	ISO 527	2300	MPa
Compressive stress at 1% n/a n/a n/a MPa Coefficient of friction n/a 0,5-0,6 Thermal properties Melting temperature n/a 150 °C Max. allowable service temp (short period) n/a 135 °C Max. allowable service temp (long period) n/a 115 °C Min. service temperature n/a -100 °C Coefficient of linear expansion n/a 70 x10 -6 m/(m* Flammability UL94 HB Electrical properties Dielectric dissipation (at 1MHz) ISO 60250 n/a Ω Electric strength ISO 60243 n/a kV/mm	Charpy impact strength - notched	ISO 179	10	kJ/m2
Coefficient of friction n/a 0,5-0,6 Thermal properties Melting temperature n/a 150 °C Max. allowable service temp (short period) n/a 135 °C Max. allowable service temp (long period) n/a 115 °C Min. service temperature n/a -100 °C Coefficient of linear expansion n/a 70 x10 -6 m/(m* Flammability UL94 HB Electrical properties Dielectric dissipation (at 1MHz) ISO 60250 n/a Q Electric strength ISO 60243 n/a kV/mm	Charpy impact strength - unnotched	ISO 179	No Break	kJ/m2
Thermal properties Melting temperature n/a 150 °C Max. allowable service temp (short period) n/a 135 °C Max. allowable service temp (long period) n/a 115 °C Min. service temperature n/a -100 °C Coefficient of linear expansion n/a 70 x10 -6 m/(m* Flammability UL94 HB Electrical properties Dielectric dissipation (at 1MHz) ISO 60250 n/a Ω Electric strength ISO 60243 n/a kV/mm	Compressive stress at 1%	n/a	n/a	MPa
Melting temperaturen/a150°CMax. allowable service temp (short period)n/a135°CMax. allowable service temp (long period)n/a115°CMin. service temperaturen/a-100°CCoefficient of linear expansionn/a70x10 -6 m/(m*FlammabilityUL94HBElectrical propertiesDielectric dissipation (at 1MHz)ISO 60250n/aΩElectric strengthISO 60243n/akV/mm	Coefficient of friction	n/a	0,5-0,6	
Max. allowable service temp (short period) n/a 135 °C Max. allowable service temp (long period) n/a 115 °C Min. service temperature n/a -100 °C Coefficient of linear expansion n/a 70 x10 -6 m/(m* Flammability UL94 HB Electrical properties Dielectric dissipation (at 1MHz) ISO 60250 n/a Ω Electric strength ISO 60243 n/a kV/mm	Thermal properties			
Max. allowable service temp (long period) n/a 115 °C Min. service temperature n/a -100 °C Coefficient of linear expansion n/a 70 x10 -6 m/(m* Flammability UL94 HB Electrical properties Dielectric dissipation (at 1MHz) ISO 60250 n/a Ω Electric strength ISO 60243 n/a kV/mm	Melting temperature	n/a	150	°C
Min. service temperature n/a -100 °C Coefficient of linear expansion n/a 70 x10 -6 m/(m* Flammability UL94 HB	Max. allowable service temp (short period)	n/a	135	°C
Coefficient of linear expansion n/a 70 x10 -6 m/(m* Flammability UL94 HB	Max. allowable service temp (long period)	n/a	115	°C
Flammability UL94 HB Electrical properties Dielectric dissipation (at 1MHz) ISO 60250 n/a Ω Electric strength ISO 60243 n/a kV/mm	Min. service temperature	n/a	-100	°C
Electrical properties Dielectric dissipation (at 1MHz) ISO 60250 n/a Ω Electric strength ISO 60243 n/a kV/mm	Coefficient of linear expansion	n/a	70	x10 -6 m/(m*K)
Dielectric dissipation (at 1MHz) ISO 60250 n/a Ω Electric strength ISO 60243 n/a kV/mm	Flammability	UL94	НВ	
Electric strength ISO 60243 n/a kV/mm	Electrical properties			
	Dielectric dissipation (at 1MHz)	ISO 60250	n/a	Ω
Volume resistivity ISO 60093 n/a Ω.cm	Electric strength	ISO 60243	n/a	kV/mm
j	Volume resistivity	ISO 60093	n/a	Ω.cm