

Durethan® BC40SR2
PA6

Envalior

PA 6, non-reinforced, injection moulding, impact modified

Mechanical Properties	dry / cond	Unit	Test Standard
ISO Data			
Tensile Modulus	2700 / 1200	MPa	ISO 527
Yield stress	70 / 40	MPa	ISO 527
Yield strain	4 / 30	%	ISO 527
Nominal strain at break	20 / >50	%	ISO 527
Impact Strength (Charpy), +23°C	no break / no break	kJ/m²	ISO 179/1eU
Impact Strength (Charpy), -30°C	no break / no break	kJ/m²	ISO 179/1eU
Notched Impact Strength (Charpy), +23°C	20 / 100	kJ/m²	ISO 179/1eA
Notched Impact Strength (Charpy), -30°C	15 / 15	kJ/m²	ISO 179/1eA
Puncture energy, +23°C	150 / 30	J	ISO 6603-2
Puncture energy, -30°C	90 / -	J	ISO 6603-2

Thermal Properties	dry / cond	Unit	Test Standard
ISO Data			
Melting Temperature (10°C/min)	222 / *	°C	ISO 11357-1/-3
Temp. of deflection under load (1.80 MPa)	50 / *	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	130 / *	°C	ISO 75-1/-2
Vicat softening temperature, 50°C/h 50N	180 / *	°C	ISO 306
Burning Behav. at 1.5 mm Nom. Thickn.	HB / *	class	UL 94
Thickness tested	1.6 / *	mm	-
Burning Behav. at thickness h	HB / *	class	UL 94
Thickness tested	3.2 / *	mm	-
Oxygen index	21 / *	%	ISO 4589-1/-2

Electrical Properties	dry / cond	Unit	Test Standard
ISO Data			
Relative permittivity, 100Hz	4 / 14	-	IEC 62631-2-1
Relative permittivity, 1MHz	3.3 / 4	-	IEC 62631-2-1
Dissipation Factor, 100Hz	125 / 1900	E-4	IEC 62631-2-1
Dissipation Factor, 1MHz	200 / 900	E-4	IEC 62631-2-1
Volume Resistivity	1E13 / 1E10	Ohm*m	IEC 62631-3-1
Surface Resistivity	* / 1E13	Ohm	IEC 62631-3-2
Electric Strength	35 / 30	kV/mm	IEC 60243-1
Comparative tracking index	600 / -	-	IEC 60112

Other Properties	dry / cond	Unit	Test Standard
ISO Data			
Water Absorption	9 / *	%	Sim. to ISO 62
Humidity absorption	2.7 / *	%	Sim. to ISO 62
Density	1100 / -	kg/m³	ISO 1183

Test specimen production	Value	Unit	Test Standard
ISO Data			
Injection Molding, melt temperature	270	°C	ISO 294
Injection Molding, mold temperature	80	°C	ISO 294

Characteristics
Processing

Injection Molding

Delivery form

Pellets

Special Characteristics

Impact modified, Heat aging stabilized