

## Technical Data Sheet

***Icorene 7710 BLK 9906***

Polyamide 6

**Product Description**

*Icorene 7710 BLK 9906* (former name: XE00010) is a polyamide 6 based Black powder (PA6) containing stabilizer additives specifically designed for rotomoulding. This grade is used for making rotomoulded parts typically used in high heat applications. The parts made using this material require post moulding conditioning in moist air or in hot water to achieve full impact resistance and ductility. This powder may be rotational moulded without using an inert gas (N<sub>2</sub> or CO<sub>2</sub>) atmosphere.

<b>Processing Method</b>	Rotomolding
<b>Attribute</b>	UV Stabilized
<b>Forms</b>	Powder
<b>Additive</b>	Antioxidant
<b>Application</b>	Automotive Under the Hood

<b>Typical Properties</b>	<b>Nominal Value</b>	<b>Units</b>	<b>Test Method</b>
<b>Physical</b>			
Density, (Black)	1.15	g/cm <sup>3</sup>	ASTM D1505
<b>Mechanical</b>			
Tensile Stress at Yield			
(Type 1A, 3.20 mm, 23 °C, 50 mm/min, Rotational Molded)	54.0	MPa	ISO 527-2
(Type 1A, 3.20 mm, 23 °C, 50 mm/min, Rotational Molded)	78.0	MPa	ISO 527-2
Tensile Strain at Break			
(Type 1A, 3.20 mm, 23 °C, 50 mm/min, Rotational Molded)	25	%	ISO 527-2
(Type 1A, 3.20 mm, 23 °C, 50 mm/min, Rotational Molded)	80	%	ISO 527-2
Flexural Modulus			
(23 °C, 3.20 mm, Rotational Molded)	1750	MPa	ASTM D790
(23 °C, 3.20 mm, Rotational Molded)	2800	MPa	ASTM D790
Tensile Strain at Yield			
(Type 1A, 3.20 mm, 23 °C, 50 mm/min, Rotational Molded)	4.0	%	ISO 527-2
(Type 1A, 3.20 mm, 23 °C, 50 mm/min, Rotational Molded)	25	%	ISO 527-2
Tensile Modulus			
(3.20 mm, 23 °C, 50 mm/min, Rotational Molded, Type 1A)	1550	MPa	ISO 527-1
(3.20 mm, 23 °C, 50 mm/min, Rotational Molded, Type 1A)	3200	MPa	ISO 527-1

**Impact**

Charpy Impact Strength - Notched, (23 °C, Type 1, Edgewise, Notch A, Complete Break)	4.8	kJ/m <sup>2</sup>	ISO 179
Impact Strength, (23 °C, 3.20 mm, Rotational Molded)	50	J	ARM

**Thermal**

Vicat Softening Temperature, (B (50N), 50 °C/h)	195	°C	ISO 306
Deflection Temperature Under Load Annealed (0.45 MPa), (3.20 mm)	185	°C	ISO 75-2/B
Deflection Temperature Under Load Unannealed (1.80 MPa), (3.20 mm, Edgewise)	55.0	°C	ISO 75-2/A
Melting Temperature	221	°C	DSC

**Flammable**

Burning Rate			
(3.00 mm)	50	mm/min	FMVSS 302
(3.00 mm)	50	mm/min	ISO 3795

**Additional Information**

Water Absorption 23C/50RH	3	%	ISO 62
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**UL Information**

Flame Rating, (1.5 mm) (UL 94)	V-2		
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