

PRE-ELEC[®] ESD 7200

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PRE-ELEC[®] ESD 7200 is a static dissipative thermoplastic compound based on PC/ABS. The dissipative property is permanent and built into the polymer chain. PRE-ELEC[®] ESD 7200 has been developed for injection moulding. The products made out of PRE-ELEC[®] ESD 7200 are washable, reusable and recyclable. Surface resistance values of 10^9 ohms (EOS/ESD S11.11-1993, IEC 61340-5-1) can be achieved with optimum processing parameters.

Typical applications include injection moulded technical parts used in e.g. office machines, telecommunication, electronics, medical and pharmaceutical industries, which give permanent ESD protection. PRE-ELEC[®] ESD 7200 can also be extruded into sheets for thermoforming.

Processing

PRE-ELEC[®] ESD 7200 compound can be processed without modifications in the machines using normal processing conditions as with PC/ABS.

Injection moulding:

Material temperature	190 - 210°C (375 - 445 °F)
Mould temperature	30 - 70 °C (85 - 160 °F)
Injection pressure	moderate to high
Post pressure	400 - 600 bar (5800 - 8700 psi)
Injection speed	moderate to high

These temperatures can be used for guidance purposes. They will also depend on the equipment used. The instructions of the equipment manufacturer should be followed.

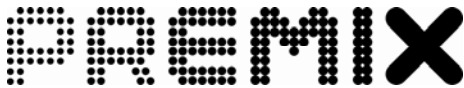
The processing temperature for PRE-ELEC[®] ESD 7200 should be less than 260°C (500 °F)

Pre-drying is recommended e.g. 2 - 4 hours at 60 - 80 °C (140 – 175 °F) in a dehumidifying drier.

Packaging and Storage

PRE-ELEC[®] ESD 7200 is supplied in granule form, packed in 20 kg polyethylene valve bags (1000 kg on one-way pallet) or in 1000 kg octabin.

The product can be stored one year in its original package. Packages should be stored indoors.



PHYSICAL PROPERTIES

PRE-ELEC[®] ESD 7200		ISO TEST METHOD	MET- RIC UNITS	VALUE	ASTM TEST METHOD	U.S. Con- ven- tional Units	VALUE
Specific gravity			g/cm ³	1.12			
Density						lb/in ³	0.040
Melt Flow Index 230°C / 2,16 kg		1133	g/10min	3.5	D-1238	g/10min	3.5
Tensile strength ⁽²⁾		527	MPa	40	D-638	psi	5800
Yield strength ⁽²⁾		527	MPa	40	D-638	psi	5800
Elongation at break ⁽²⁾		527	%	153	D-638	%	153
Elongation at yield ⁽²⁾		527	%	10	D-638	%	10
Tensile modulus ⁽²⁾		527	MPa	570	D-638	10 ³ psi	83
Flexural modulus ⁽²⁾		178	MPa	1700	D-790	10 ³ psi	250
Impact strength, unnotched Izod ⁽²⁾ 4.0 mm (0.156-in) thickness, 23°C/73°F 4.0 mm (0.156-in) thickness, -20°C/-4°F		180	J/m J/m	NB -	D-256	ft-lb/in ft-lb/in	NB -
Impact strength, notched Izod ⁽²⁾ 4.0 mm (0.156-in) thickness, 23°C/73°F 4.0 mm (0.156-in) thickness, -20°C/-4°F		180	J/m J/m	77 -	D-256	ft-lb/in ft-lb/in	1.4 -
Vicat softening point ⁽²⁾ Rate A Rate B		306/ A50 B50	°C °C	121 101	D-1525	°F °F	250 214
Deflection temperature ⁽²⁾ 0.45 MPa (66 psi) - load 1.8 MPa (264 psi) - load		75/ Method Bf Method Af	°C °C	106 87	D-648	°F °F	223 189
Surface resistance ⁽¹⁾		IEC 61340-5-1	Ω	<10¹⁰	EOS/ESD S11.11- 1993	Ω	<10¹⁰
Static Decay Rate ⁽¹⁾		IEC 61340-5-1	s	<2	FTMS- 101C	s	<2
Mould shrinkage		294-4	%	-	D-955	in/in	-
Hardness ⁽¹⁾ Shore A Shore D		868		- -	D-2240		- -
Flammability 1 mm 3 mm		RD524			RD524	39 mils 118 mils	

⁽¹⁾ test specimen: 3mm (0.117 in) thick molded plate

⁽²⁾ test specimen: 4.0 mm (0.156 in) thick, 10.0 mm (0.391 in) wide moulded rod

The information in this data sheet represents typical values obtained by us and should not be regarded as a specification.

We condition that the product will be inspected and qualified by the customer for his process to meet the specific requirements set by application, processing equipment and end product.

PRE-ELEC[®] is a registered trademark of Premix.