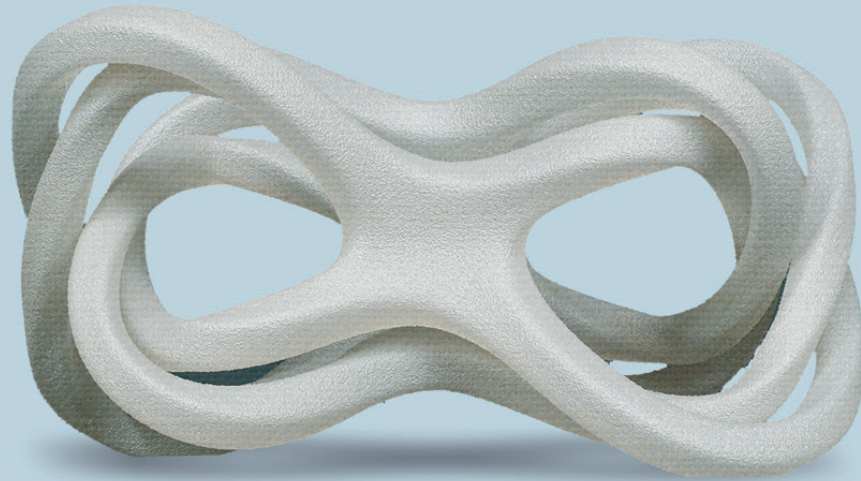




## ABS ESD-R KIMYA



**The ABS ESD-R** is ideal for applications that require protection against electrostatic discharges. Only available in black.

| STIFFNESS | EASY TO PRINT

| ELECTROSTATIC DISCHARGE PROTECTION

### FILAMENT PROPERTIES

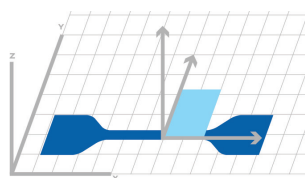
PROPERTIES	TESTS METHODS	UNITS	VALUES
Diameter	INS-6712	mm	1.75 ± 0.1 2.85 ± 0.1
Specific gravity	ISO 1183	g/cm <sup>3</sup>	1.06
Humidity rate	INS-6711	%	<0.5
MFI (@260°C – 10 kg)	ISO 1133	g/10min	4 - 8
Glass temperature T <sub>g</sub>	DSC	°C	107

## PRINT PARAMETERS AND SPECIMENS DIMENSIONS

<b>PRINT AXIS</b>	XY
<b>PRINT SPEED</b>	40 mm/s
<b>INFILL</b>	100% - rectilinear
<b>INFILL ANGLE</b>	45°/-45°
<b>EXTRUSION TEMPERATURE</b>	260°C
<b>PLATFORM TEMPERATURE</b>	100°C

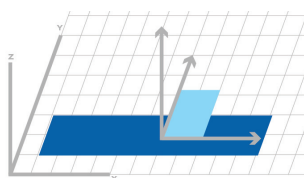
## RESULTS

### TENSILE TEST



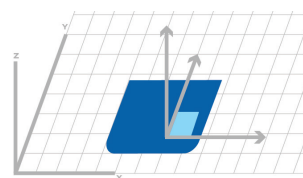
Dim.(mm) : 75x12.5x2  
Specimen type ISO 527-5A

### BENDING TEST - CHARPY IMPACT



Dim. (mm) : 80x10x4

### HARDNESS



Dim.(mm) : 45x45x4

## PRINTED SPECIMENS PROPERTIES

	PROPERTIES	TEST METHODS	UNITS	VALUES
<b>ELECTRICAL PROPERTIES</b>	Surface resistivity	ASTM D257	Ohms/m2	10 <sup>6</sup> - 10 <sup>9</sup>
<b>TENSILE TEST</b>	Tensile modulus	ISO 527	MPa	1,858
	Tensile strength	ISO 527	MPa	32.8
	Elongation @ tensile strength	ISO 527	%	1.9
	Tensile stress @ break	ISO 527	MPa	26.7
	Tensile elongation @ break	ISO 527	%	4.7
<b>BENDING TEST</b>	Flexural modulus	ISO 178	MPa	1,515
	Flexural stress @ 3.5%	ISO 178	MPa	42,6
	Flexural stress	ISO 178	%	>5*
<b>CHARPY IMPACT</b>	Charpy impact strength (Notched - type A)	ISO 179	kJ/m2	4.9
<b>HARDNESS</b>	Hardness	ISO 868	Shore D	76,8

\*According to ISO 178, end of the test at 5% deformation even if there is no specimen break.

The results presented are the averaged values of the ABS ESD-R range 1.75 mm  
For each test, 5 specimens per reference, previously placed at least 24 hours in climatic chambers (23 °C - hygrometry: 50%), have been tested.