

# Technical Data Sheet for ElectriPlast™

**Owned By:**

Integral Technologies, Inc.  
805 West Orchard Dr., Suite 7  
Bellingham, WA 98225  
Tel. 360-752-1982 ext. 2 or 888-666-8833  
Fax 360-752-1983  
Email: itkginquiry@itkg.net  
Web: www.itkg.net  
Stock Symbol: OTCBB:ITKG

**Manufactured By:**

Jasper Rubber Products, Inc.  
1010 First Avenue  
Jasper, IN 47546  
Tel. 812-482-3242  
Fax 812-482-0816  
ISO/TS 16949:2002  
Web: www.jasperrubberproducts.com  
Initial Release: 01/08/2010

## JR 8425569 - ElectriPlast™ PA66/316L

**Product Data**

TYPICAL PROPERTIES <sup>1</sup>			
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength, Break	84.43 (12,245)	MPa (psi)	ASTM D 638
Tensile Elongation, Break	2.8	%	ASTM D 638
Tensile Modulus	5,806 (842,105)	MPa (psi)	ASTM D 638
Flexural Strength	141.0 (20,450)	MPa (psi)	ASTM D 790
Flexural Modulus	5,369 (778,726)	MPa (psi)	ASTM D 790
Impact	Nominal Value	Unit	Test Method
Izod Impact, Notched, 23°C (73°F)	42.31 (0.79)	J/m (ft-lb/in)	ASTM D 256
Izod Impact, Unnotched, 23°C (73°F)	363.3 (6.85)	J/m (ft-lb/in)	ASTM D 256
Thermal	Nominal Value	Unit	Test Method
HDT, 1.82 Mpa (264 psi)	210	°C (°F)	ASTM D 648
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.65	-	ASTM D 792
Electrical	Nominal Value	Unit	Test Method
Surface Resistance	1.73	Ohm	ESD STM 11.11
Surface Resistivity	17.33	Ohm/sq.	ESD STM 11.11
Volume Resistivity	5.67	Ohm-cm	ASTM D257
Static Decay	0.01	seconds	FTMS 101C, 4046
Shielding Effectiveness (30MHz to 1500Mhz) (0.125"/3.0mm Thickness)	See Attachment	dB	ASTM D 4935
Flame Characteristics <sup>2</sup>	Nominal Value	Unit	Test Method
UL 94 (HB) Flame Class Rating	<15.0	mm/Min.	UL 94

### NOTES

<sup>1</sup> Typical Properties: These are not to be construed as specifications. Variations within normal tolerances are possible.

<sup>2</sup> This rating is not intended to reflect hazards presented by this or any other material under actual fire conditions.

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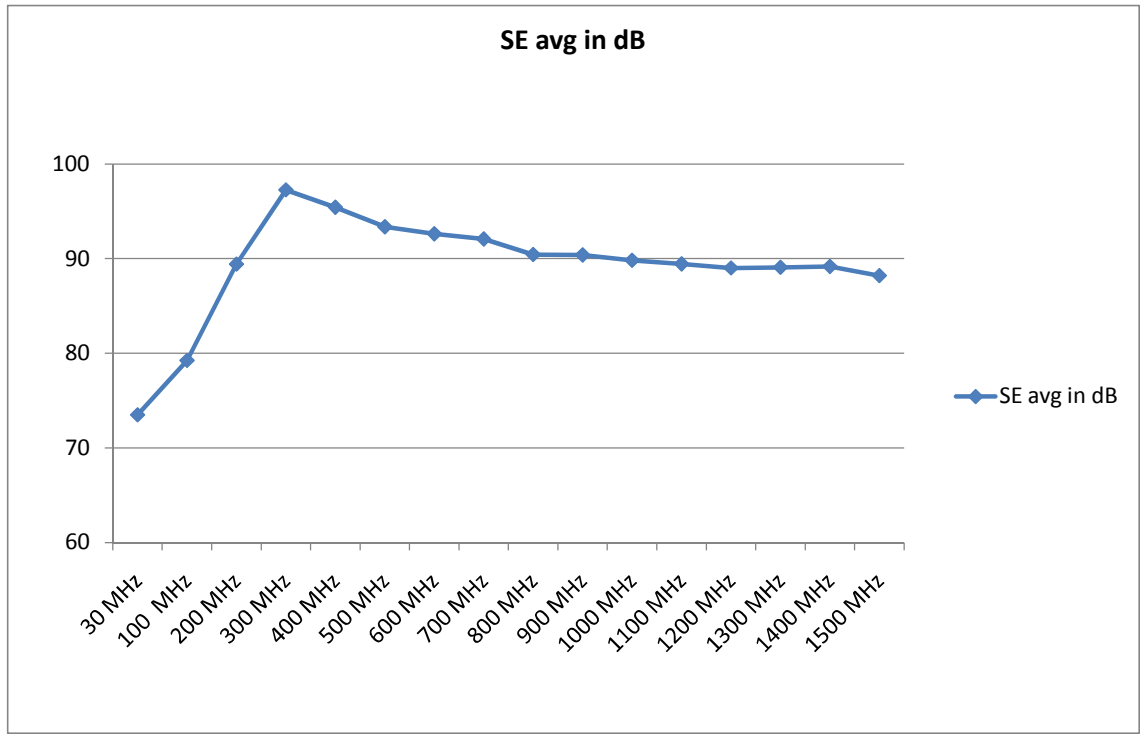
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## "Shield Effectiveness"

Frequency	SE avg in dB
30 MHz	73.47980682
100 MHz	79.22822215
200 MHz	89.40840983
300 MHz	97.26139244
400 MHz	95.42063161
500 MHz	93.36439261
600 MHz	92.61779768
700 MHz	92.06968122
800 MHz	90.43019491
900 MHz	90.38552838
1000 MHz	89.81444846
1100 MHz	89.4402918
1200 MHz	89.01088627
1300 MHz	89.07564315
1400 MHz	89.16362826
1500 MHz	88.19872934



Values based on 0.125" thickness

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TM

## General Molding Set-up Parameters for ElectriPlast

**Resin Type:** Nylon PA  
**ElectriPlast P/N:** 8425569

**Resin Grade:** PA6/6 HSL Heat Stabilized

TEMPERATURE					INJECTION	
NOZZLE HEATER	FRONT ZONE	CENTER ZONE	REAR ZONE		Injection Speed	1 in/sec
<b>550 °F</b>	<b>550 °F</b>	<b>530 °F</b>	<b>540 °F</b>		1 <sup>st</sup> Stage (injection)	2400 psi
TIME					2 <sup>nd</sup> Stage (molding)	500 psi
T5	T1 <b>5.0</b> INJ.	T2 <b>2.0</b> HOLD	T3 <b>30.0</b> COOL	T4	Back Pressure	75 psi
MOLD TEMPERATURE					Screw RPM	50 rpm
Stationary: 170 °F					Decompression	0.5 inch
Moveable: 170 °F					MODE: FULLY AUTOMATIC ROBOT	
Dry Temperature: 180 °F					Dry Time: 4 Hours	

These general molding parameters are provided as exemplary or baseline values for molding ElectriPlast. These values were established by molding 48g plaques using an 85 ton Milacron machine with a 4.4 oz shot capacity. Adjustments may be necessary for each individual machine and product.