# PLASTIFORM® 1533 Magnet Material

ROHS COMPLIANT\*\*\*\*

PRELIMINARY PRODUCT DATA SHEET

**Typical Magnetic Properties** 

Properties	Anisotropic			
	CGS/U.S.		SI	
Br	2550	Gauss	255	mTesla
Hc	2335	Oersteds	186	kA/m
Нх	2600	Oersteds	207	kA/m
Hci	3400	Oersteds	271	kA/m
BHmax	1.6	MGOe	12.7	kJ/m <sup>3</sup>
Urec	1.06		1.06	
Temperature Coefficient of Br	-0.11	%/°F	-0.20	%/°C
Temperature Coefficient of Hci	0.08	%/°F	0.15	%/°C
Peak Magnetizing Force Required	10,000	Oersteds	796	kA/m

## **Features**

- Nitrile rubber bonded strontium ferrite
- Made by calendaring sheet process
- Roll Goods
- **Punched Parts**
- Laminated with adhesives up to 0.150" in thickness if desired
- Close magnetic tolerances
- Flexible permanent magnet
- Available magnetized or demagnetized; special patterns may require a magnetizing fixture
- Custom tooling; production
- Magnets may be machined for fast, low quantity prototyping

Typical Physical Properties

Properties	CGS/U.S.	SI	
Mechanical			
Tensile Strength <sup>1</sup>	450 psi	) psi 310 Ncm <sup>2</sup>	
Elongation at Break <sup>1</sup>	35 %	35 % 35 %	
Flexibility <sup>2</sup>	7X thickness 7X thickness		
Hardness	44 Shore D 44 Shore D		
Density <sup>3</sup>	0.134 lbs/in <sup>3</sup>	3.71 g/cm <sup>3</sup>	
Electrical Volume Resistivity <sup>4</sup>	10 <sup>10</sup> Ohm*cm	10 <sup>10</sup> Ohm*cm	
Dielectric Strength <sup>5</sup>	250 v/mil	10 kv/mm	
Thermal			
Maximum Continuous Operating Temperature <sup>6</sup>	250°F 120°C		
Coefficient of Lin. Ther. Expansion <sup>7</sup> (Thickness)	9.8 x 10 <sup>-5</sup> in/in per °F	18 x 10 <sup>-5</sup> cm/cm per °C	

Test Methods <sup>1</sup>ASTM D-636 <sup>2</sup>Arnold Test Method <sup>3</sup>ASTM D-297 <sup>4</sup>ASTM D-257 <sup>5</sup>ASTM D-149 <sup>6</sup>Arnold Test Method <sup>7</sup>ASTM D-696

## Flexmag Industries

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<sup>\*</sup> All values shown are measured at 23°C (73°F).

<sup>\*\*</sup> All values are based on a standard test plug. Consult with an application engineer for more information on your specific requirements.

<sup>\*</sup> All values shown are typical and are not intended for specification purposes.
\*\*\*\*We have instituted manufacturing procedures designed to restrict the use of hazardous substances. To the best of our knowledge, this product is in compliance with EU Directive 2002/95/EC with respect to lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls (PBB) and polybrominated diphenyl ethers (PBDE). Notwithstanding the foregoing, we make no warranty as to the fitness of this product for any purpose.

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