

## Ceradyne SEMICORE® S1-5B MMPA 16/18 SmCo5 Samarium Cobalt Magnet

Category : Metal , Electronic/Magnetic Alloy , Nonferrous Metal , Cobalt Alloy

### Material Notes:

Magnetic alignment parallel to Compaction Axis Applications: Microwave amplifiers and oscillators for airborne equipment TWT modules for phased array radar Small motors for severe thermal conditions Hermetic magnetic couplings to replace shaft seals Lightweight generators, usually for aircraft Vane actuators for missiles Particle beam focusing, quadrupoles, lenses, wigglers, etc. Magnetic bearings, gyros, vacuum pumps, accelerometers Various mechanisms in disk drives, cameras, tape drives, and miniature loudspeakers and earphones; where small size is important Magnetic alignment parallel to compaction angle. Information provided by Ceradyne Company

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Ceradyne-SEMICORE-S1-5B-MMPA-1618-SmCo5-Samarium-Cobalt-Magnet.php](http://www.lookpolymers.com/polymer_Ceradyne-SEMICORE-S1-5B-MMPA-1618-SmCo5-Samarium-Cobalt-Magnet.php)

| Physical Properties | Metric    | English                  | Comments |
|---------------------|-----------|--------------------------|----------|
| Density             | 8.40 g/cc | 0.303 lb/in <sup>3</sup> |          |

| Thermal Properties   | Metric                                    | English                                     | Comments |
|----------------------|---|---|----------|
| CTE, linear          | 7.00 $\mu\text{m}/\text{m}\cdot\text{°C}$ | 3.89 $\mu\text{in}/\text{in}\cdot\text{°F}$ |          |
|                      | @Temperature 20.0 °C                      | @Temperature 68.0 °F                        |          |
| Thermal Conductivity | 10.5 W/m-K                                | 72.5 BTU-in/hr-ft <sup>2</sup> -°F          |          |

| Electrical Properties               | Metric            | English           | Comments  |
|-------------------------------------|-------------------|-------------------|-----------|
| Electrical Resistivity              | 0.0000500 ohm-cm  | 0.0000500 ohm-cm  |           |
| Magnetic Coercive Force, Hc         | >= 1800 Oe        | >= 1800 Oe        | Intrinsic |
|                                     | 7700 - 8300 Oe    | 7700 - 8300 Oe    |           |
| Magnetic Remanence, Br              | 8000 - 8500 Gauss | 8000 - 8500 Gauss |           |
| Magnetic Maximum Energy Product, BH | 16 - 18 MGOe      | 16 - 18 MGOe      |           |
| Curie Temperature                   | 700 °C            | 1290 °F           |           |

| Descriptive Properties                   | Value  | Comments |
|--|--------|----------|
| Room Temperature Compensation, RTC, %/°C | -0.045 |          |

## Contact Songhan Plastic Technology Co.,Ltd.

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