Flexmag FM-60
Anisotropic Magnets

FEATURES

PRELIMINARY PRODUCT INFORMATION

- Polymer bonded, extruded, flexible high energy ferrite magnet
- Energy product (BHmax)up to 2.0 MGOe
- Adjustable magnetic output with tight magnetic tolerance
- Capable of large and intricate cross-sections (1" x 1" or more)
- Multi-pole magnetization possible

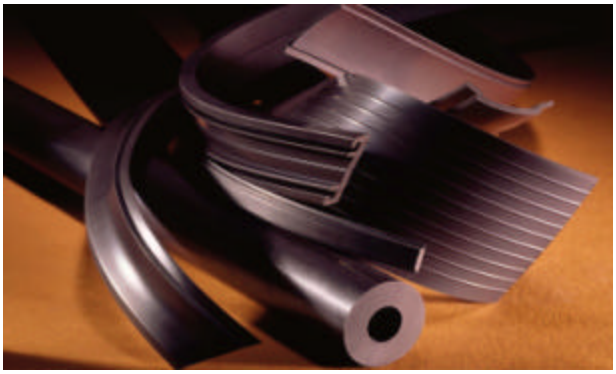
Flexmag extruded magnets are made by combining high quality thermoplastic elastomer (rubber) resins with magnetic powders and extruding the compound through precisely controlled dies. These magnets offer a combination of flexibility with usable resistance to breakage, and strong magnetics in a variety of complex cross-sections. The **manufacturing process** inherently and reproducibly yields continuous strips of magnets with tight tolerances. Because the process is also capable of in-line magnetization and other value-added operations, it can provide to the customer both excellent performance and excellent value.

Dimensional tolerances, while depending on product size and configuration, are generally ±0.010 in/in. Closer tolerances on critical dimensions can be negotiated. **Magnetic tolerances** can be as small as ±4% of Gauss output, again, depending on product size, configuration, and requirement.

A broad range of cross-sections can be produced during the extrusion process. These range from simple rectangular or circular cross-section to complex shapes, including hollow tubes and cylinders. When applicable, secondary operations can also be added on an in-line basis. These include stamping, coating, adhesive bonding, cut to length, and more.

Typical applications for Flexmag® Extruded Magnets:

- Copier and laser printer rolls
- Permanent magnet motor magnets
- Magnetic actuators for switches and sensors
- Holding devices, latches, seals



Samples of Flexmag® extruded magnets can be supplied for evaluation. Such samples can be machined to final dimensions from a suitable magnetic material. When designs are finalized, a relatively inexpensive extrusion die can be made to produce the magnets in final shape and in large quantity. Samples can be supplied in either magnetized state or demagnetized state. Special magnetizing patterns may require fabrication of magnetizing fixtures. **Requests for Quotes** for samples, prototype, and production tooling should be directed to your Group Arnold sales representative along with specific requirements for the magnets

All Flexmag® magnets are manufactured to the highest quality standards using sound engineering practices and up-to-date statistical methods.

Call your Flexmag Industries Representative today.

FLEXMAG™
107 Industry Rd. Marietta, OH 45750 USA
Tel: 800-543-4426 or (+1) 740-374-8024 Fax: (+1) 740-374-5068
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Typical Properties at 23°C (73°F)

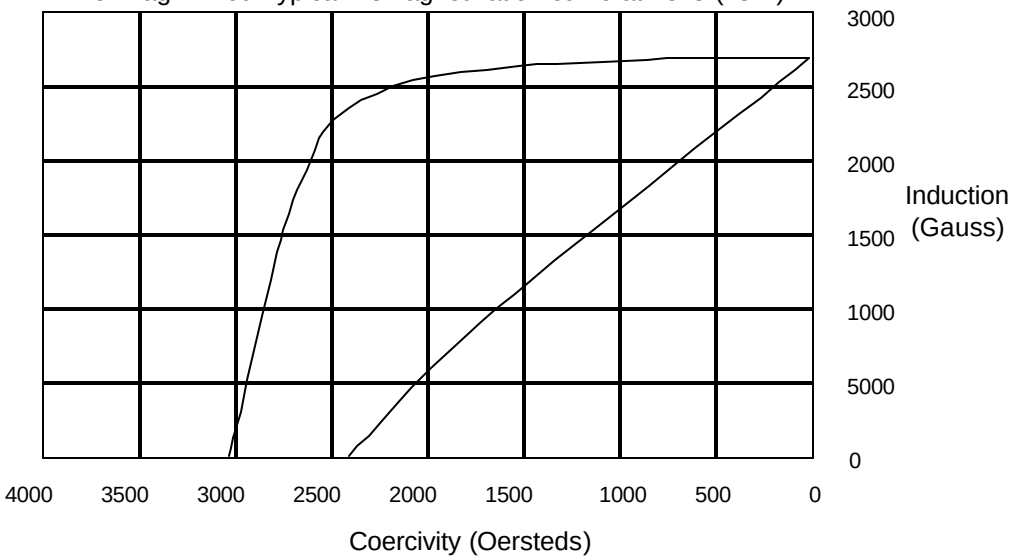
Magnetic Properties

Property	CGS	SI
Br (Residual Induction)	2,730 G	273 mT
Hc (Coercive Force)	2,390 kOe	189 kA/m
Hci (Intrinsic Coercivity)	3,040 Oe	240 kA/m
BHmax (Maximum Energy Product)	1.80 MGOe	14.3 kJ/m^3
Reversible Temperature Coefficient of Induction, 20-100°C	-0.10% per °F	-0.18% per °C
Reversible Temperature Coefficient of Coercivity, 20-100°C	0.15% per °F	0.27% per °C
Required Magnetizing Force	10,000 kOe	790 kA/m

Mechanical Properties

Property	CGS	SI
Tensile Strength	Approx. 900 psi	Approx. 6.2 MPa
Elongation at Yield	Approx. 5 %	Approx. 5 %
Elongation at break	Approx. 5 %	Approx. 5 %
Density	0.134 lb/cu in.	3.72 g/cc
Hardness	65 Shore D	65 Shore D
Maximum Recommended Operating Temperature	176 °F	80°C

Flexmag FM-60 Typical Demagnetization curve at 23°C (73°F)



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