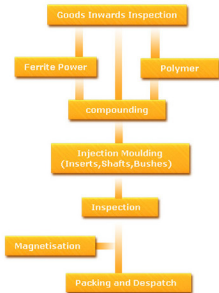





**PROCESS FLOW**

**General Information**

In bonded Hard Ferrite material range, flexible rubber magnet is mostly common used. Flexible materials offer the product designer a uniquely desirable combination of properties at lower cost than other magnet materials. The flexibility and machinability of these materials permit design innovations and automated manufacturing techniques not possible with rigid or brittle materials.

Flexible materials can be bent, twisted, coiled, punched, and otherwise machined into almost any shape without loss of magnetic energy.

Higher energy flexible materials may sometimes replace Ceramic 1 materials, if close tolerances are not required, and if operating temperatures are below about 250 F. Standard grades of flexible materials have energy products from 0.6 MGOe to 1.6 MGOe.

**Manufacturing Methods**

**Extrusion:** to produce materials in strip form (from about 1/4" to 10" wide)

**Calendering:** to produce materials in sheet form (up to about 24" wide)

**Injection:** to produce materials in ring form.

**Shapes, Sizes, and Grades Available**

Standard stocked shapes include strip and sheet in the lower energy grades, strip and a variety of punched parts in ring, disc, and bar shapes in the higher energy grades. Non-standard shapes and sizes can be fabricated to blueprint specifications from raw stock. Non-standard profiles of the 0.6 MGOe material can be extruded by fabricating special dies.

**Assemblies**

Assemblies using metal or other components and magnets can be fabricated by adhering magnets with adhesives to suit a range of environments, by mechanically fastening magnets, or by a combination of these methods. We are able to laminate a variety of standard pressure sensitive adhesives to magnetic strip.

**Surface Treatments**

No surface treatments are required to protect against corrosion. We are able to laminate a variety of decorative facings to magnetic strip.

**Machining**

Flexible materials are relatively easy to fabricate: they may be cut, scored, punched, slit, or die cut to shape. We are equipped to fabricate these materials to specification.

**Magnetizing and Handling**

Low energy flexible magnets are magnetized with multiple poles on one surface to give greater holding force. Higher energy flexible magnets are magnetized either multiple pole, or single pole on one surface. No special handling precautions have to be taken with flexible magnets since they are relatively weak magnetically, and are not brittle.

**Temperature Effects**

Magnetic properties of flexible magnets degrade linearly with temperature in the same way as Ceramic magnets. However, the limiting factor for flexible magnets are the binder materials used to render them flexible: these begin to flow at temperatures of about 250 F.

**粘 结 铁 氧 体 的 磁 性 能**
**Magnetic Properties of Bonded Hard Ferrite magnets**

牌 号 Grade	剩 磁 Remanence Br		矫 顽 力 Normal Coercivity Hcb		内 禀 矫 顽 力 Intrinsic Coercivity Hcj		最 大 磁 能 积 Maximum Energy Product (BH)max	
	mT	KGs	KA/m	KOe	KA/m	KOe	KJ/m <sup>3</sup>	MGOe
				Nominal				
BFM-E-1	130-180	1.3-1.8	80-115	1.00-1.44	100-160	1.26-2.01	3.2-6.4	0.40-0.80
BFM-E-2	210-235	2.1-2.35	140-160	1.76-2.01	200-220	2.51-2.76	9.5-10.4	1.19-1.31
	"E" symbolize Extrusion							
BFM-C-1	130-180	1.3-1.8	80-120	1.00-1.51	100-160	1.26-2.01	4.0-6.4	0.50-0.80
BFM-C-2	180-220	1.8-2.2	100-140	1.26-1.76	120-190	1.51-2.39	6.4-8.0	0.80-1.00
BFM-C-3	210-239	2.1-2.39	140-165	1.76-2.07	150-210	1.88-2.64	8.0-10.4	1.00-1.31
BFM-C-4	240-265	2.4-2.65	156-181	1.96-2.27	200-270	2.51-3.39	10.4-12.5	1.31-1.57
	"C" symbolize Calendering							
BFM-P-1	140-160	1.4-1.6	88-115	1.10-1.44	100-140	12.6-1.76	3.2-4.8	0.4-0.6
BFM-P-2	240-260	2.4-2.6	160-180	2.01-2.26	170-220	2.14-2.76	10.3-12.7	1.29-1.60
BFM-P-3	285-295	2.85-2.95	180-190	2.26-2.39	220-235	2.76-2.95	15.0-16.8	1.88-2.11
BFM-P-4	245-260	2.45-2.6	170-180	2.14-2.26	210-220	2.64-2.76	11.8-12.8	1.48-1.61
BFM-P-5	260-280	2.6-2.8	180-195	2.26-2.45	240-260	3.01-3.27	13.8-14.8	1.73-1.86
	"P" symbolize Plastic Injection							

**粘 结 铁 氧 体 的 物 理 性 能**
**Physical Properties of Bonded Hard Ferrite magnets**

牌 号 Grade	弹 性 力 Extension Strength(MPa)	最 大 承 受 力 Extension(Mpa)	硬 度 Hardness(SHA)	工 作 温 度 Using Temperature( C)	密 度 Density(g/cm3)	
BFM-E-1	5-10	30-100	85-98	-10-80	3.6-3.7	
BFM-E-2	5-10	40-100	85-98	-10-80	3.6-3.7	
	"E" symbolize Extrusion					
BFM-C-1	7-12	100-200	85-98	-10-80	3.6-3.7	
BFM-C-2	7-12	100-300	85-98	-10-80	3.6-3.7	
BFM-C-3	7-12	100-200	85-98	-10-60	3.6-3.7	
BFM-C-4	7-12	100-300	85-98	-10-80	3.6-3.7	
	"C" symbolize Calendering					
牌 号 Grade	熔 融 指 数 Melt Flow Rate	密 度 Mold Density	抗 曲 强 度 Flexural Strength	抗 曲 系 数 Flexural modulus	收 缩 率 Percentage Shrinking	缓 冲 力 IZOD Impact Strength
	g/10min	g/cm3	MPa	X10 <sup>4</sup> MPa	%	X10 <sup>-3</sup> J/m2
BFM-P	100	3.6-3.8	113.8	1.49	0.7-0.9	14.7
	"P" symbolize Plastic Injection					