

General Information

Compound magnets, which contain magnetic Nd-Fe-B, Sm-Co, ferrite powders and such chemical materials, like rubber and nylon. The compound materials concluded magnetic characteristics and physical features.

Flexible rubber magnet and plastic magnets are mostly common used.



Rubber Process Magnets

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.

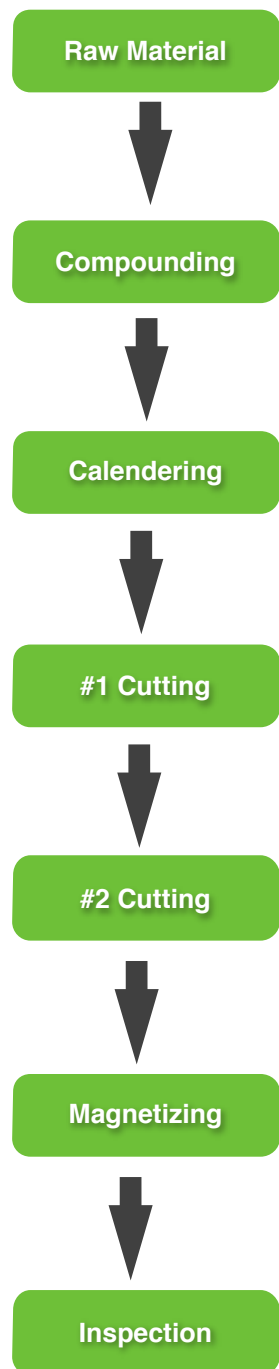
The materials can be bent, twisted, coiled, punched, and otherwise machined into almost any shape without loss of magnetic energy. Higher energy flexible materials may sometimes replace Ceramic 1 materials, if close tolerances are not required, and if operating temperatures are below about 250 F. Standard grades of flexible materials have energy products from 0.6 MGOe to 1.6 MGOe.

Injection Process Magnets

The injection molding process bring the magnets more complex shapes and design, usually processed with shafts or other mechanical designs. We have PA and PPS for raw plastic materials and widely use in micro motors, mag rollers in printer, sensor magnets and rotor magnets in DC brushless motors.

1. RUBBER PROCESS MAGNETS

Process Flow



Magnetic Property

1.1. RUBBER FERRITE MAGNETS

Material Code Instruction: X RM XX
 N, NBR Rubber Ferrite Magnet HF, Halogen Free
 C, CPE 13~14, Material #

Material Code	Residual Induction	Coercive Force	Intrinsic Coercive Force	Max. Energy Product	Working Temperature
	Br(kGs)	Hcb(kOe)	Hcj(kOe)	BHmax(MGOe)	°C
NRM	2.40~2.60	2.15~2.45	2.80~3.50	1.45~1.65	-40~100
NRM-HF	2.40~2.60	2.15~2.50	2.80~3.80	1.45~1.65	-40~100
CRM13	2.40~2.60	2.15~2.45	2.80~3.50	1.45~1.65	-40~85
CRM14	2.55~2.75	2.10~2.40	>2.30	1.55~1.75	-40~85

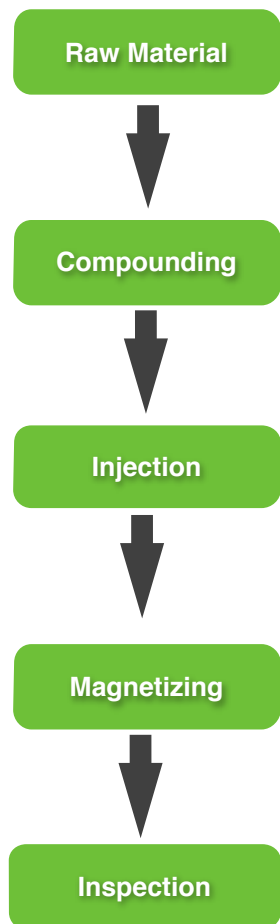
1.2. RUBBER ND-FE-B MAGNETS

Material Code Introduction RN X
 Rubber Nd-Fe-B Magnet 3~5, Material #

Material Code	Residual Induction	Coercive Force	Intrinsic Coercive Force	Max. Energy Product	Working Temperature
	Br(kGs)	Hcb(kOe)	Hcj(kOe)	BHmax(MGOe)	°C
RN3	3.30~4.30	2.10~3.10	4.80~6.80	2.50~3.50	~120
RN4	3.80~4.80	2.70~3.70	6.80~8.80	3.50~4.50	~120
RN5	4.30~5.30	3.20~4.20	7.80~9.80	4.50~5.50	~120

2. INJECTION PROCESS MAGNETS

Process Flow



Magnetic Property

2.1. INJECTION FERRITE MAGNET

Material Code Introduction

IF

X

Injection Ferrite Magnet 08~20, Material #

Material Code	Residual Induction	Coercive Force	Intrinsic Coercive Force	Max. Energy Product	Working Temperature
	Br(kGs)	Hcb(kOe)	Hcj(kOe)	BHmax(MGOe)	°C
IF08	1.70~2.00	1.45~1.75	2.75~3.05	0.70~0.90	*Refer to plastic material
IF14	2.30~2.60	1.95~2.25	2.70~3.00	1.35~1.55	
IF15	2.35~2.65	2.15~2.45	2.65~2.95	1.45~1.65	
IF16	2.40~2.70	2.20~2.50	2.75~3.05	1.55~1.75	
IF17	2.55~2.85	2.25~2.55	2.85~3.15	1.65~1.85	
IF19	2.60~2.90	2.30~2.60	2.85~3.15	1.80~2.00	
IF20	2.70~3.00	2.35~2.65	2.80~3.10	1.95~2.15	

2.2. INJECTION SM-CO MAGNET

Material Code Introduction

IS

X

Injection Sm-Co Magnet 6~9, Material #

Material Code	Residual Induction	Coercive Force	Intrinsic Coercive Force	Max. Energy Product	Density
	Br(kGs)	Hcb(kOe)	Hcj(kOe)	BHmax(MGOe)	g/ cm3
IS6	5.2~5.8	3.8~4.8	8.0~15.0	6.0~7.0	4.6~5.5
IS7	5.7~6.1	4.2~5.0	8.0~15.0	7.0~8.0	5.1~5.4
IS8	6.0~6.4	4.5~5.6	8.0~15.0	8.0~9.0	5.3~5.6
IS9	6.3~6.6	5.2~5.8	8.0~15.0	9.0~10.0	5.4~5.8

2.3. INJECTION ND-FE-B MAGNET

Material Code Introduction

IN

X

Injection Nd-Fe-B Magnet 3~8, Material #

Material Code	Residual Induction	Coercive Force	Intrinsic Coercive Force	Max. Energy Product	Density
	Br(kGs)	Hcb(kOe)	Hcj(kOe)	BHmax(MGOe)	g/ cm3
IN3	3.0~3.7	3.2~4.0	8.0~9.5	2.5~3.5	3.5~4.3
IN4	3.7~4.5	3.5~4.2	8.0~9.5	3.6~4.5	4.0~5.0
IN5	4.6~5.2	3.8~4.5	8.0~9.5	4.6~5.5	4.5~5.0
IN6	5.3~5.6	4.2~5.0	8.0~9.5	5.6~6.5	5.0~5.2
IN7	5.7~6.0	4.2~5.2	8.0~9.5	6.6~7.5	5.0~5.5
IN8	6.1~6.4	4.8~5.4	8.0~9.5	7.5~8.5	5.4~5.6

*** Choose below plastic materials for max. working temperatures:**

Plastic Material Name	PA6	PA12	PPS
Working Temperature	150°C	120°C	180°C