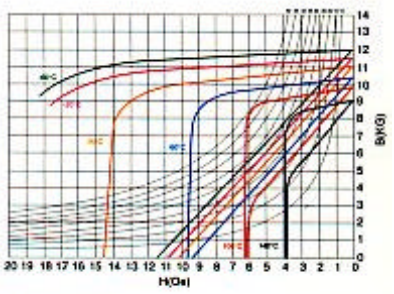
Rare earths. Neodymium and Sam. Cobalt

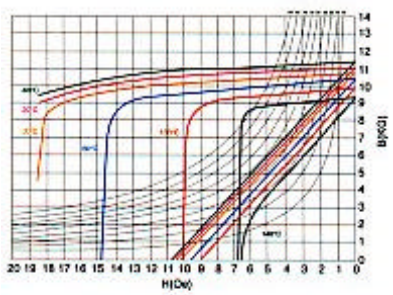
From a technological point of vieuw, the magnets made of rare earths are the most advanced products available on the market. The traditional Sam-Co, which has been on the market since 1980 is slowly but progressively going to be replaced by the Neodymium, which is not only more powerful and less fragile, but also cheaper. Sam-Co is however still used for temperatures higher than 180°C. Since neodymium corrodes rapidly, they are oftenly coated with zinc, nickel or epoxy. Neodymium is 7 to 10 times more powerful than the ordinary magnetic materials.

Terres rares. Néodyme et Samarium Cobalt

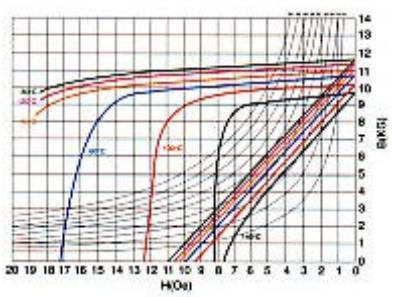
Du point de vue technologique, les aimants en terres rares sont les plus avancés que le marché puisse offrir. Le Sam-Co, sur le marché depuis 1980, va lentement mais progressivement être remplacé par le néodyme qui coûte moins cher et qui est plus puissant et moins fragile. Le Samarium est toutefois encore conseillé pour des températures supérieures à 180°C. Ces aimants se désagrégeant rapidement, les aimants néodyme sont habituellement revêtus de zinc, nickel ou d'époxy. Le néodyme est 7 à 10 fois plus puissant que les matériaux magnétiques traditionnels.



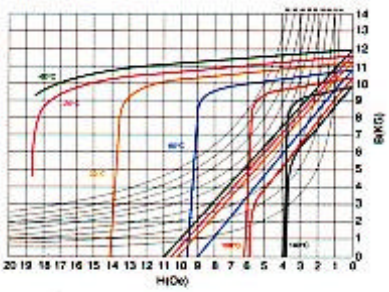
NEO 27



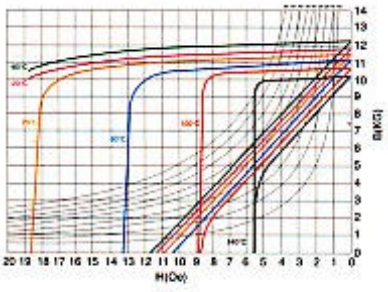
27 H



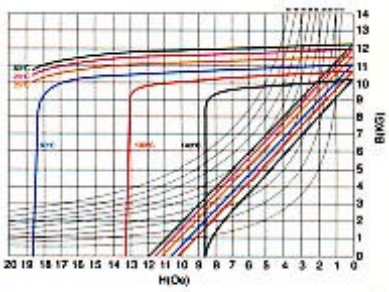
27 SH



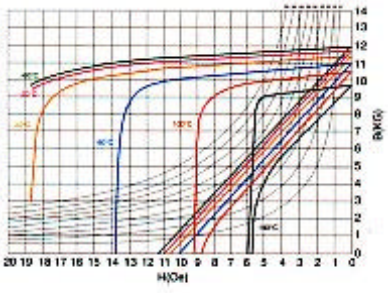
NEO 30



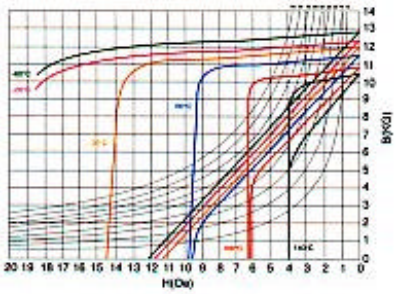
30 H



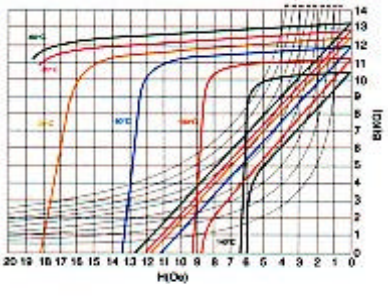
30 SH



32 H



35



NEO 35 H

PERMANENT MAGNETS

Rares earths. Neodymium and Samarium Cobalt Terres rares. Néodyme et Samarium Cobalt

Material	Remanence	Coercivity	Intr. Coercivity	Max. En. Product	Temperature
Grade	(Br) T	(bHc) KA/m	(iHc) KA/m	(BH)max KJ/m³	(°C)
N30	1,08-1,12 T	780-836 KA/m	>= 955 KA/m	223-239 KJ/m³	<= 80 °C
N33	1,14-1,17 T	820-876 KA/m	>= 955 KA/m	247-263 KJ/m³	<= 80 °C
N35	1,17-1,21 T	860-915 KA/m	>= 955 KA/m	263-279 KJ/m³	<= 80 °C
N38	1,22-1,26 T	860-915 KA/m	>= 955 KA/m	287-303 KJ/m³	<= 80 °C
N40	1,26-1,29 T	836-876 KA/m	>= 955 KA/m	303-318 KJ/m³	<= 80 °C
N42	1,29-1,32 T	836-876 KA/m	>= 955 KA/m	318-334 KJ/m³	<= 80 °C
N30M	1,08-1,12 T	780-836 KA/m	>= 1114 KA/m	223-239 KJ/m³	<= 100°C
N33M	1,17-1,14 T	820-876 KA/m	>= 1114 KA/m	239-263 KJ/m³	<= 100°C
N35M	1,17-1,21 T	860-915 KA/m	>= 1114 KA/m	263-279 KJ/m³	<= 100°C
N38M	1,22-1,26 T	860-915 KA/m	>= 1114 KA/m	287-303 KJ/m³	<= 100°C
N40M	1,26-1,29 T	860-915 KA/m	>= 1114 KA/m	303-318 KJ/m³	<= 100°C
N27H	1,02-1,06 T	740-796 KA/m	>= 1353 KA/m	199-215 KJ/M³	<= 120°C
N30H	1,08-1,12 T	780-836 KA/m	>= 1353 KA/m	223-239 KJ/m³	<= 120°C
N33H	1,14-1,17 T	820-876 KA/m	>= 1353 KA/m	247-263 KJ/m³	<= 120°C
N35H	1,17-1,21 T	860-915 KA/m	>= 1353 KA/m	263-279 KJ/m³	<= 120°C
N37H	1,21-1,26 T	915-955 KA/m	>= 1353 KA/m	287-303 KJ/m³	<= 120°C
N27SH	1,02-1,06 T	740-796 KA/m	>= 1595 KA/m	199-215 KJ/M³	<= 150°C
N30SH	1,08-1,12 T	780-836 KA/m	>= 1595 KA/m	223-239 KJ/m³	<= 150°C
N33SH	1,14-1,17 T	740-876 KA/m	>= 1595 KA/m	247-263 KJ/m³	<= 150°C
N35SH	1,17-1,21 T	860-915 KA/m	>= 1595 KA/m	263-279 KJ/m³	<= 150°C
N25UH	0,98-1,02 T	732-764 KA/m	>=1990 KA/m	183-199 KJ/m³	<= 180°C
N28UH	1,04-1,08 T	780-812 KA/m	>=1990 KA/m	207-223 KJ/m³	<= 180°C
N30UH	1,08-1,12 T	804-844 KA/m	>=1990 KA/m	223-239 KJ/m³	<= 180°C
Sm2Co17 - S24	>= 10.2 Kg	>= 9.2 Kg	>= 18 K Oe	>= 24 MGOe	<= 300°C
Sm2Co17 - S26H	>= 10.5 Kg	>= 9.0 Kg	>= 11 K Oe	>= 26 MGOe	<= 300°C
SmCo5 - S18	>= 8.70 Kg	>= 8.0 Kg	>= 20 K Oe	>= 18 MGOe	<= 300°C
SmCo5 - S20	>= 9.0 Kg	>= 8.5 Kg	>= 15 K Oe	>= 20 MGOe	<= 300°C