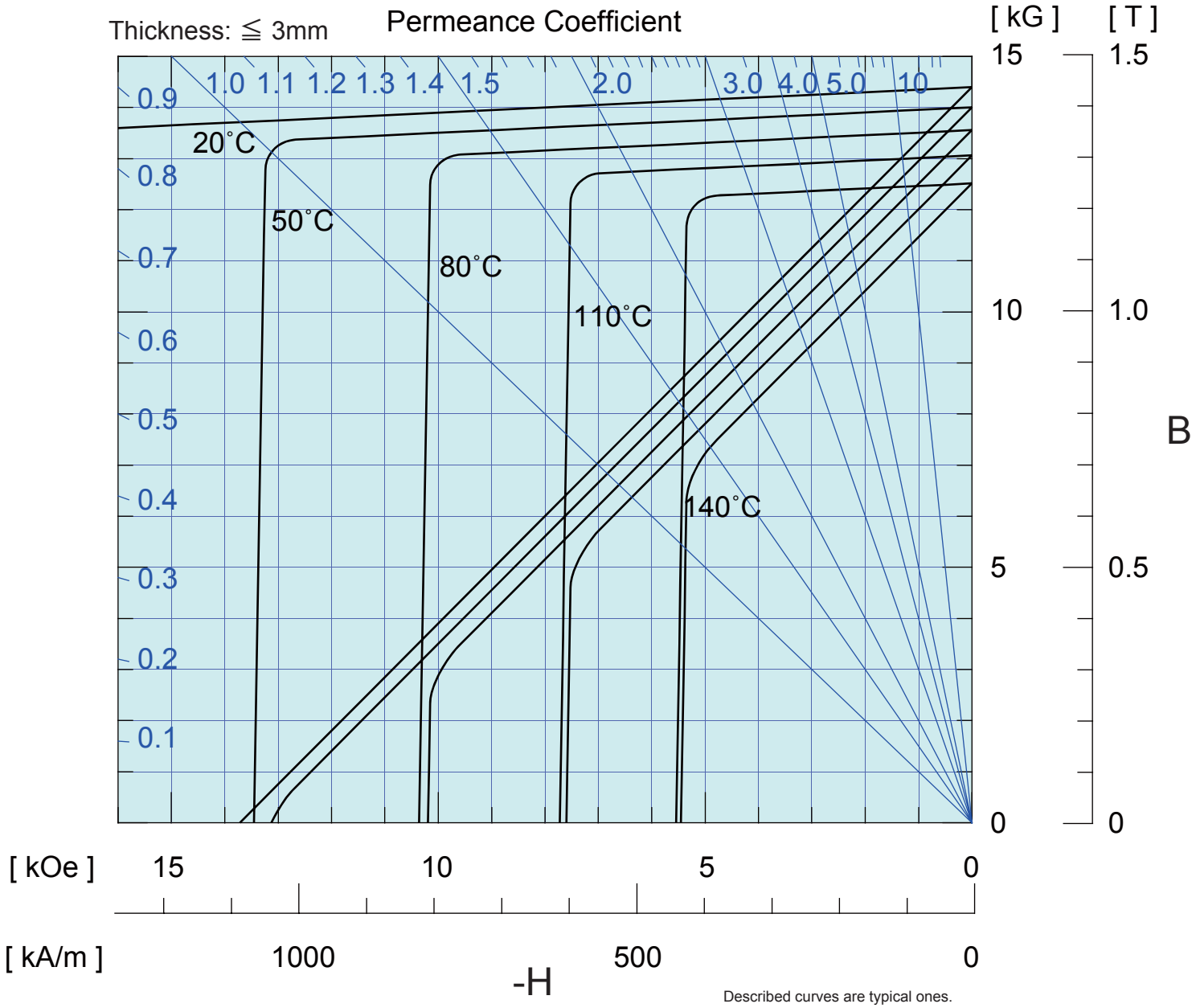
Shin-Etsu Rare Earth Magnets

N52H-G

Nd-Fe-B Magnet

Demagnetization Curves at Elevated Temperature



Described curves are typical ones.
Please feel free to contact us if you'd like further information, including lower limit values.

Standard Characteristics

Items / Materials				N52H-G C// (C⊥)
Magnetic Properties	Remanence B_r		[T]	1.41 ~ 1.47
			[G]	14100 ~ 14700
	Coercivity	H_{cB}	[kA / m]	1058 ~
			[Oe]	13300 ~
		H_{cJ}*1	[kA / m]	1273 ~
			[Oe]	16000 ~
	Maximum Energy Product $(BH)_{max}$		[kJ / m^3]	378 ~ 422
			[MGOe]	47.5 ~ 53
	Recoil Permeability μ_r		[-]	1.05
Temperature Properties	Thermal Coefficient of B_r*2		[% / K]	-0.11
	Thermal Coefficient of H_{cJ}*3		[% / K]	-0.57
	Coefficient of Thermal Expansion*4		[1 / K]	6.9×10^{-6} (-1.7×10^{-6})
	Curie Point		[°C]	330

*1:Thickness:≦3mm.
Please contact Shin-Etsu marketing staff if you need detailed information.
*2:$\Delta B_r/\Delta T\times100/B_r(20°C)$ (ΔT:20~140°C)
*3:$\Delta H_{cJ}/\Delta T\times100/H_{cJ}(20°C)$ (ΔT:20~140°C)
*4:20~200°C

Other Properties

Density	[kg / m^3]	7.55×10^3
Bending Strength	[MPa]	290
Compressive Strength	[MPa]	940
Young's Modulus	[GPa]	150
Rigidity	[GPa]	61
Vickers Hardness	[Hv]	600
Electrical Resistivity	[Ω・m]	1.4×10^{-6}
Thermal Conductivity	[W / m・K]	7.6 (8.6)
Specific Heat*5	[J / kg・K]	4.6×10^2

*5:20~120°C

Shin-Etsu Chemical Co.,Ltd. http://www.shinetsu-rare-earth-magnet.jp/e/

- **Headquarters(Electronic Materials Division/Magnet Dept.)**
  Asahi Seimei Ohtemachi Bldg.,2-6-1 Ohtemachi, Chiyoda-ku, Tokyo 100-0004, Japan
  Phone.81-3-3246-5246 / Facsimile.81-3-3246-5367
- **Shin-Etsu Magnetics Inc. Chicago Office**
  909 Parkview Blvd. 6 Lombard, IL 60148 U.S.A
  Phone.1-630-424-3364 / Facsimile.1-630-424-3365
- **Shin-Etsu Magnetics Europe GmbH**
  Gerbermuehlstrasse 7, 60594 Frankfurt am Main, Germany
  Phone.49-69-8720-0299 / Facsimile.49-69-2717-9292

- The contents of this literature are subject to change without notice.
- Magnetic Properties may vary due to size and shape, and may not achieve the properties specified above.
- This product is manufactured under the license from Hitachi Metals, Ltd.
- The contents of this literature are effective as of April 2016.