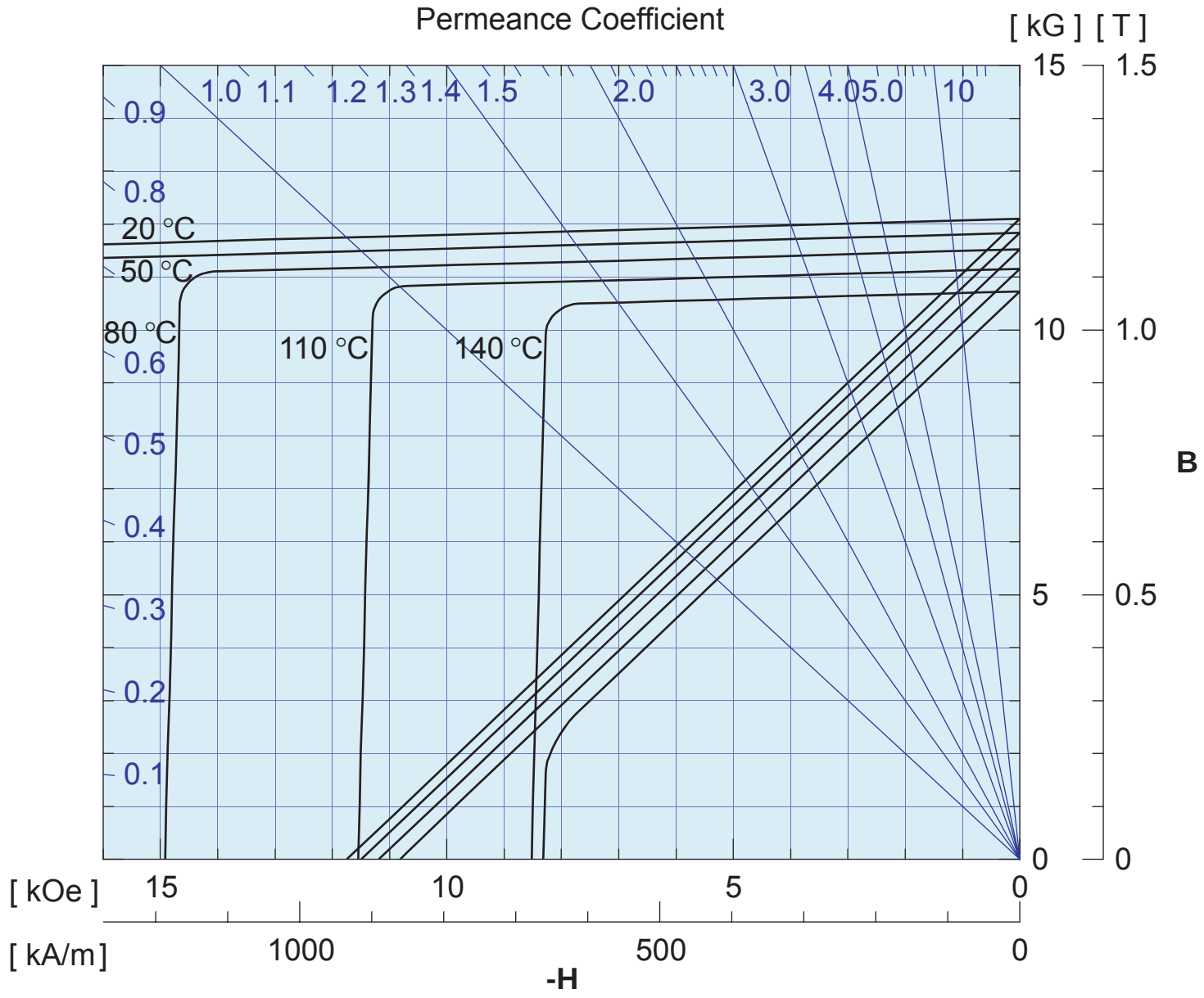
Shin-Etsu Rare Earth Magnets

N36SH

Nd-Fe-B Magnet

Demagnetization Curves at Elevated Temperature



Standard Characteristics

Items \ Materials			N36SH
Remanence B_r		[T]	1.19 ~ 1.25
		[G]	11900 ~ 12500
Coercivity	H_{cB}	[kA / m]	899 ~
		[Oe]	11300 ~
	H_{cJ}	[kA / m]	1671 ~
		[Oe]	21000 ~
Maximum Energy Product $(BH)_{max}$		[kJ / m^3]	271 ~ 310
		[MGOe]	34 ~ 39
Recoil Permeability μ_r		[—]	1.05
Thermal Coefficient of B_r		[% / ℃]	- 0.11 *1
Thermal Coefficient of H_{cJ}		[% / ℃]	- 0.53 *2
Curie Point		[℃]	340

*1:$\Delta B_r/\Delta T x100/B_r(20°C)$ (ΔT:20~140°C)
*2:$\Delta H_{cJ}/\Delta T x100/H_{cJ}(20°C)$ (ΔT:20~140°C)

Other Properties

		C//	C⊥
Density	[kg / m^3]	$7.60x10^3$	
Bending Strength	[MPa]	290	
Compressive Strength	[MPa]	940	
Young's Modulus	[GPa]	150	
Rigidity	[GPa]	61	
Vickers Hardness	[Hv]	600	
Electrical Resistivity	[Ω・m]	$1.4x10^{-6}$	
Specific Heat	[J / kg・℃]	$4.6x10^2$ *3	
Thermal Conductivity	[W / m・℃]	7.6	8.6
Coefficient of Thermal Expansion	[1 / ℃]	$7.2x10^{-6}$ *4	$-1.1x10^{-6}$ *4

*3:20~140°C
*4:20~200°C

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