

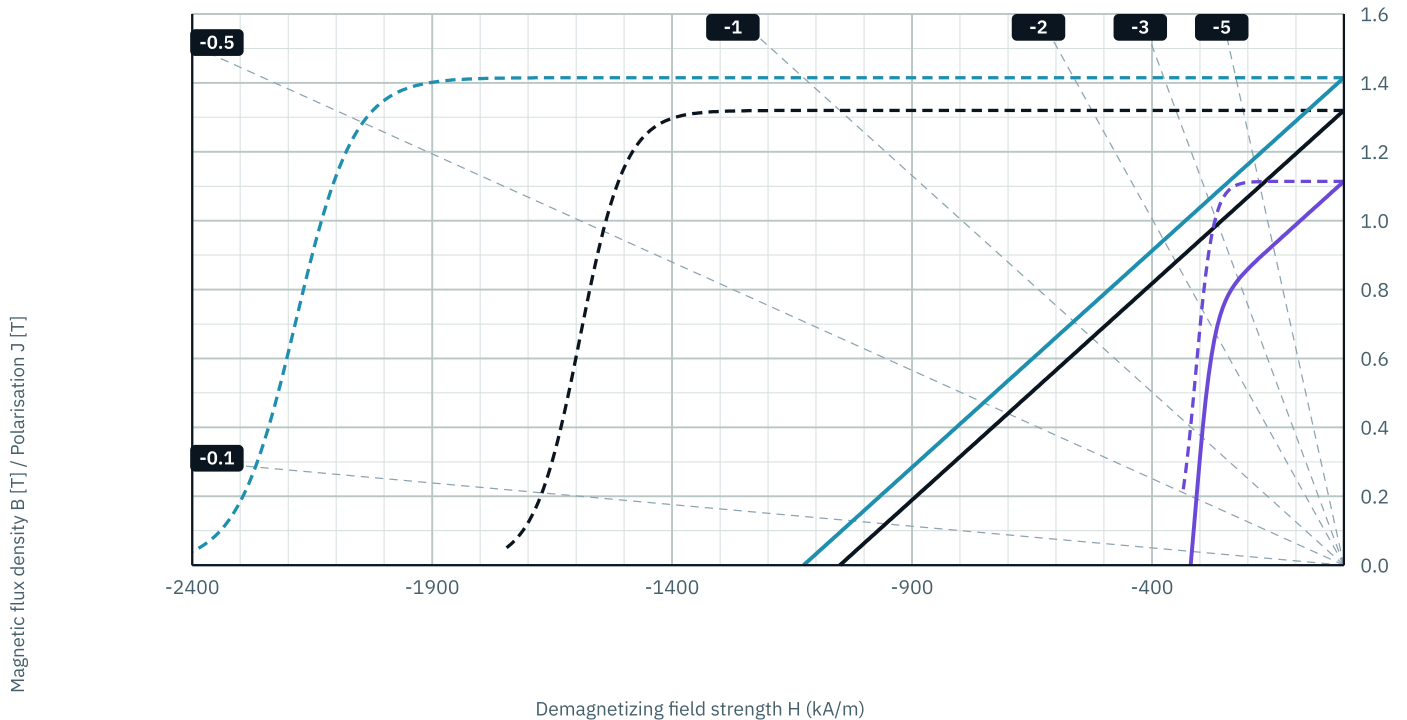
Neodymium N45SH

Anisotropic sintered NdFeB permanent magnet

B_r min 1.32 T
 T_{max} 150 °C
 $(BH)_{max}$ min 333 kJ/m³

DEMAGNETIZATION CURVE N45SH

— 20 °C — -40 °C — 150 °C - - polarisation J



MAGNETIC PROPERTIES @ 20 °C

B_r	min	1.32 T
H_{cB}	min	979 kA/m
H_{cJ}	min	1592 kA/m
$(BH)_{max}$	min	333 kJ/m³
$\alpha(B_r)$	min typ	-0.12 %/°C
$\beta(H_{cJ})$	min typ	-0.62 %/°C
T_{max}		150 °C
μ_r	typ	1.05 -

PHYSICAL & MECHANICAL PROPERTIES @ 20 °C

Density	typ	7400 – 7800 kg/m³
Vickers hardness	typ	500 – 700 HV
Modulus of elasticity / Young's modulus	typ	140 – 200 GPa
Flexural / bending strength	typ	100 – 400 MPa
Compressive strength	typ	600 – 1100 MPa
Tensile strength / ultimate strength	typ	74 – 90 MPa
Electrical resistivity	typ	1.1 – 1.7 μΩm
Specific heat capacity	typ	350 – 550 J/(kg·K)
Thermal conductivity	typ	5 – 15 W/(m·K)
Coeff. of linear thermal expansion, parallel to DOM*	typ	3 – 9 10⁻⁶/K
Coeff. of linear thermal expansion, perpendicular to DOM*	typ	-3 – 0 10⁻⁶/K

*DOM = Direction Of Magnetization

Solid lines represent magnetic flux densities. Dashed lines represent polarisations. The curves here are estimates obtained from data available from the current Goudsmit grade system (available on the website. See also the magnetic properties below). On request, actual measurements of demagnetization curves can be obtained. For that, contact us on the address below.