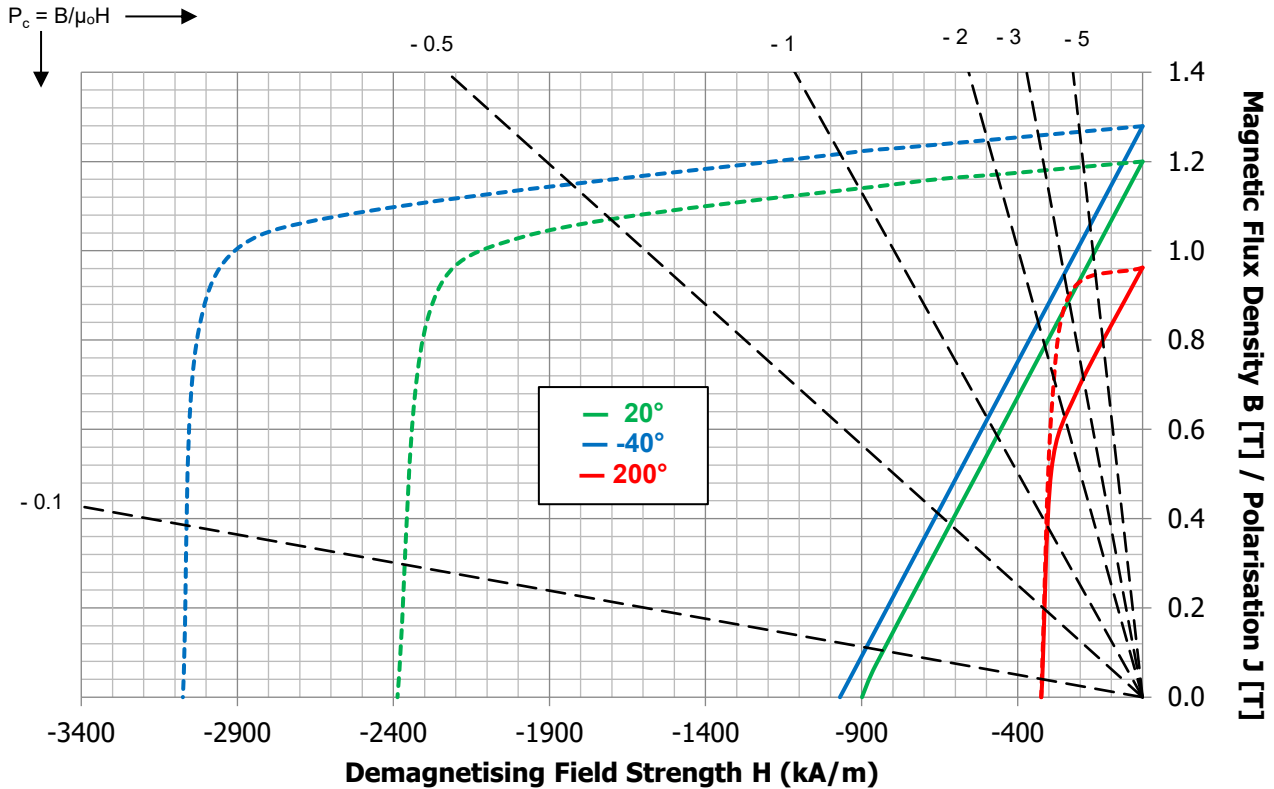


# Technical Datasheet: Neodymium N38EH – Anisotropic Sintered

## Demagnetisation Curve N38EH



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

Magnetic Properties @20°C			
$B_r$	min	1.20	T
$H_{cB}$	min	899	kA/m
$H_{cJ}$	min	2387	kA/m
$(BH)_{ma}$	min	281	$\text{kJ/m}^3$
$\alpha(B_r)$	min typ	-0.11	%/°C
$\beta(H_{cJ})$	min typ	-0.48	%/°C
$T_{max}$		200	°C
$\mu_r$	typ	1.05	-

Physical & Mechanical Properties @20°C			
Density	typ	7400 - 7800	$\text{kg/m}^3$
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	$\mu\Omega\text{m}$
Specific heat capacity	typ	350 - 550	$\text{J}/(\text{kg K})$
Thermal conductivity	typ	5 - 15	$\text{W}/(\text{m K})$
Coefficient of linear thermal expansion,    DOM*	typ	3 - 9	$10^{-6}/\text{K}$
Coefficient of linear thermal expansion, $\perp$ DOM*	typ	-3 - 0	$10^{-6}/\text{K}$

\* DOM = Direction Of Magnetisation