DURA MAGNETICS
PROVIDING PRECISION MAGNETIC SOLUTIONS SINCE 1961

N38

Sintered Neodymium-Iron-Boron Magnets

Also available in other Energy Products from 30-55MGOe and Maximum Temperatures up to 230°C / 446°F. If you require DFAR Compliant material please contact our sales team directly with your requirements.

Magnetic Properties

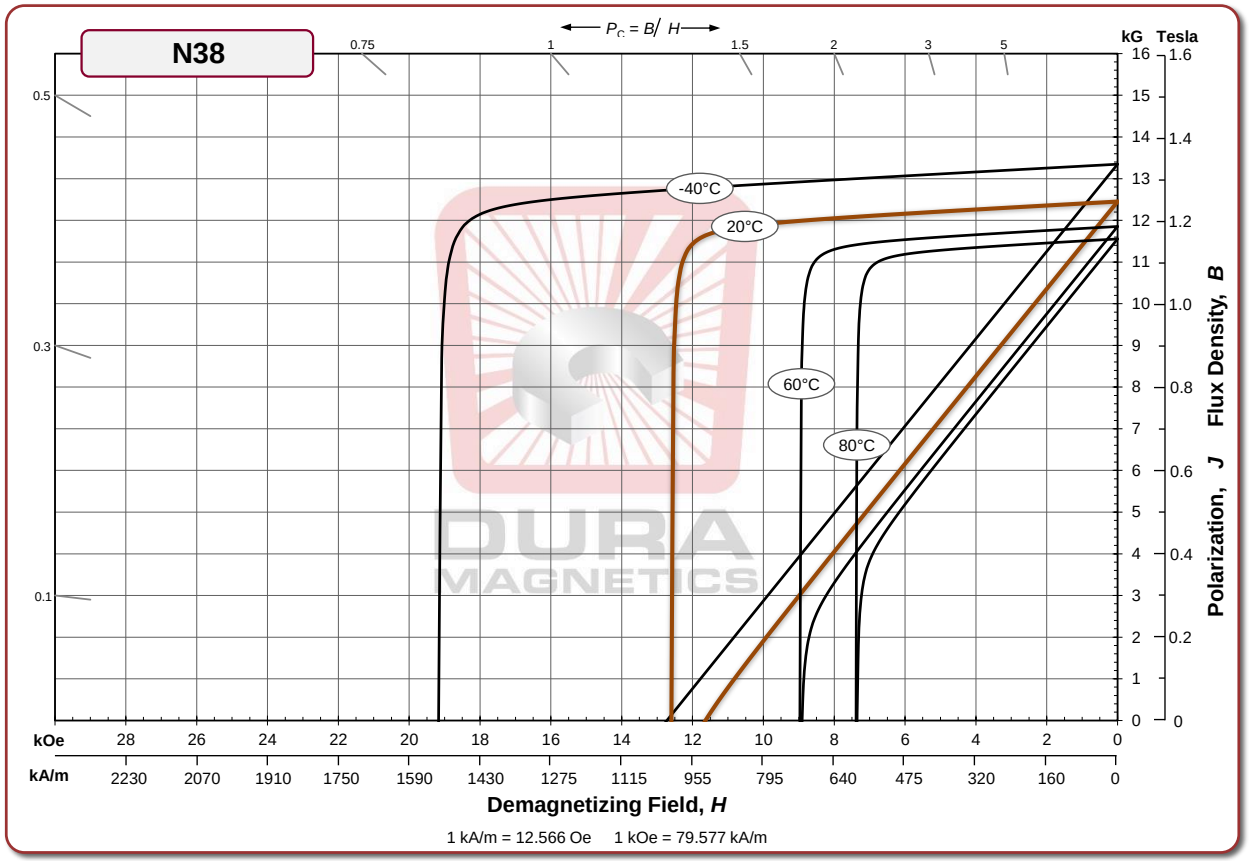
Characteristic	Units	min.	nominal	max.
B_r Residual Induction	Gauss	12,300	12,450	12,600
	mT	1230	1245	1260
H_{cB} Coercivity	Oersteds	11,300	11,650	12,000
	kA/m	899	927	955
H_{cJ} Intrinsic Coercivity	Oersteds	12,000		
	kA/m	955		
BH_{max} Maximum Energy Product	MGOe	36	38	39
	kJ/m^3	287	299	311

Thermal Properties

Characteristic	Units	Nominal
Reversible Temperature Coefficients (1)		
of Induction, $\alpha(B_r)$	%/ºC	-0.120
of Coercivity, $\alpha(H_{cJ})$	%/ºC	-0.690
Curie Temperature, T_C	ºC	310
Recommended Max use temperature (2)	ºC	80

Physical Properties

Characteristic	Units		Nominal
Density	g/cm^3		7.5
Vickers Hardness	Hv		620
Coef Thermal Expansion	%/ ºCx10^{-6}	C //	7.5
	C ⊥		-0.1
Electrical Resistivity	μΩ • cm		180
Specific Heat	cal/gºC		0.11
	J/kg • K		460
Bending (flexural) Strength	MPa		285



Notes: (1) Coefficients measured between 20 and 80 ºC

(2) Recommended maximum use temperature based on a minimum P_C of 2.2.

These magnetic characteristics and demagnetization curves represent typical production magnet performance across the specifie d temperature spectrum. Empirical testing for your application is advised for suitability determination.

Dura Magnetics Inc also supplies Alnico, Samarium Cobalt, and Ceramic magnets and magnetic assemblies, please contact sales@d uramag.com or visit www.duramag.com.

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