

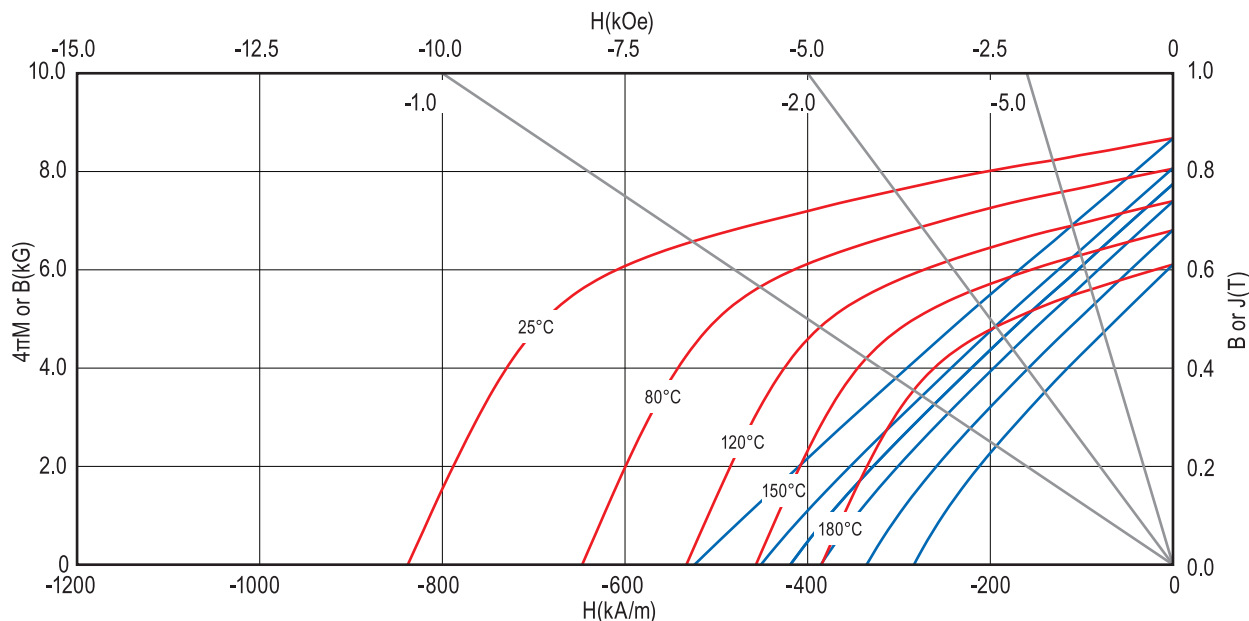
MQP™-B-20172-070 Isotropic Powder*

Material Description

MQP-B-20172-070 is an isotropic powder, designed to replace MQP-B-20052-070, is suitable for the manufacture of bonded magnets. This powder is based on a patented Nd-Pr-Fe-B alloy composition that will help you to realize a significant cost advantage if you choose to switch. MQP-B-20172-070 also maintains similar magnetic performance as its Nd based counterparts. This material is produced by employing a proprietary rapid solidification process followed by a milling process and heat treatment.

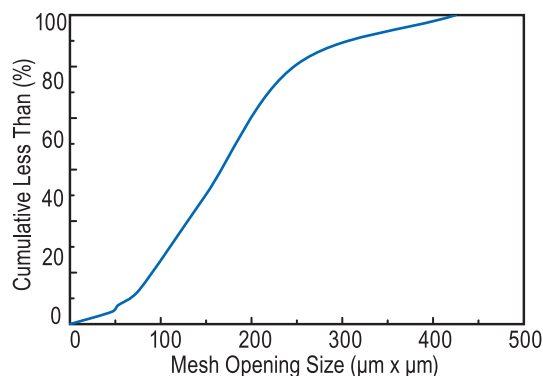
Powder Magnetic Characteristics¹

		SI	CGS
Specified	Residual Induction, B_r	860-880	mT.....8.60-8.80
	Energy Product, $(BH)_{max}$	116-124	kJ/m ³14.5-15.6
	Coercivity Force, H_{ci}	800-860	kA/m.....10.0-10.8
Typical	Magnetizing Field to $\geq 95\%$ Saturation H_s	≥ 1600	kA/m ≥ 20.0
	Temperature coefficient of B_r , α , to 100° C	-0.14	%/°C
	Temperature coefficient of H_{ci} , β , to 100° C	-0.44	%/°C
	Intrinsic Coercivity, H_c	540	kA/m 6.8
	Curie Temperature, T_c	298	°C
	Maximum Operating Temperature ²	150-180	°C
	Maximum Process Temperature ³	225-250	°C



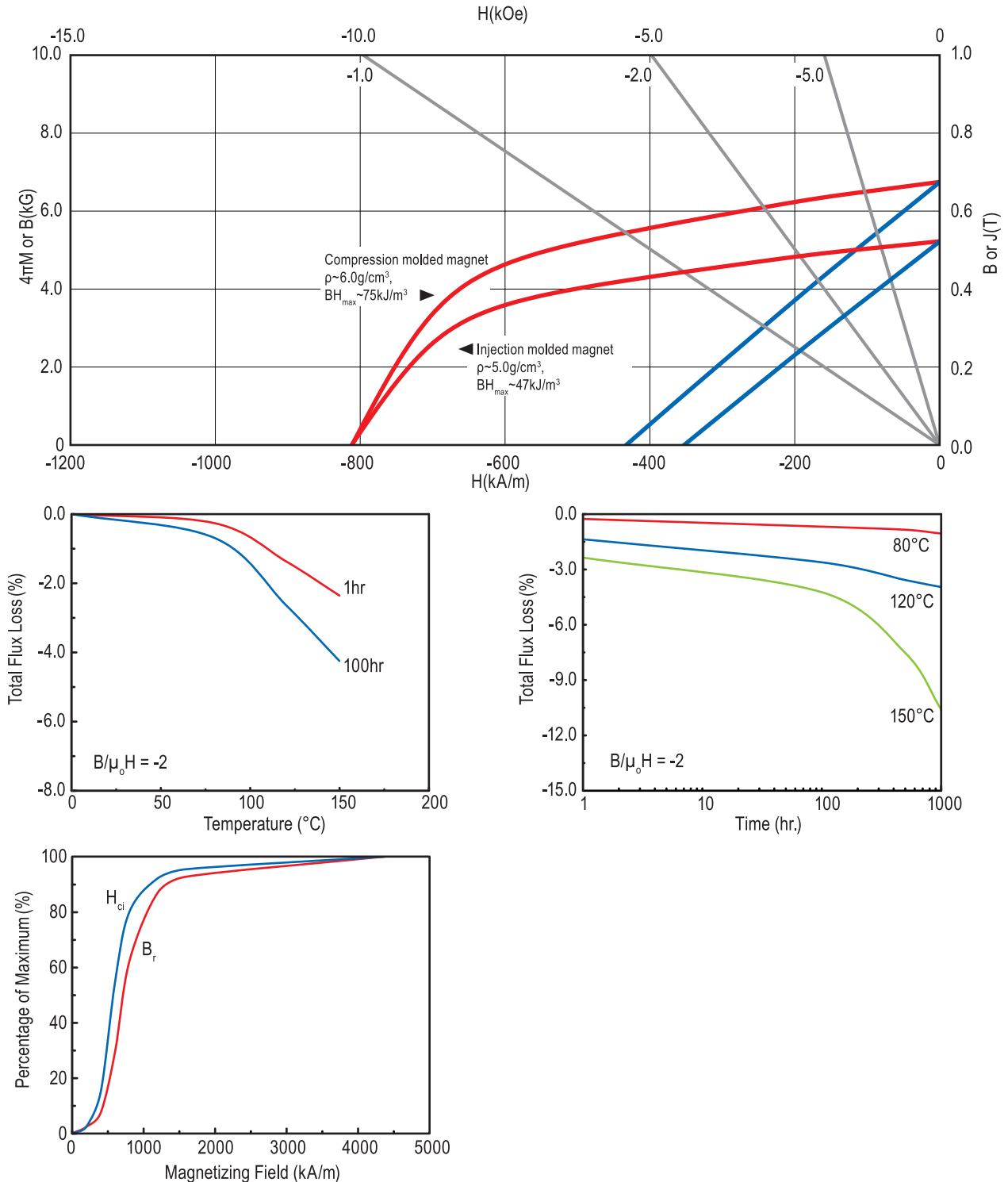
Physical Characteristics

Specified	Sieve Screen Analysis:	
	Total > 40 Mesh (177x177μm opening)	< 0.1wt%
	Total > 60 Mesh (149x149μm opening)	< 25wt%
	Total < 270 Mesh (53x53μm opening)	< 20wt%
Typical	Density (theoretical)	7.59 g/cm ³
	Apparent Density	2.87 g/cm ³



*Contact Magnequench to obtain up-to-date product specifications.

Bonded Magnet Characteristics⁴



¹ Properties measured at 25 $^{\circ}\text{C}$, unless otherwise specified.

² The Maximum Operating Temperature for a magnet made from this powder is dependent upon the specific application, the type of magnet, and magnet geometry. Contact our Application Engineers for more information.

³ Maximum Process Temperature is defined here at $<2\%$ reduction in coercivity (i.e. structural loss) after heating powder 1 hour in air.

⁴ These properties are typical at 25 $^{\circ}\text{C}$ and are representative only. Magnet properties are dependent upon powder loading and magnet manufacturing conditions. Contact our Application Engineers for information about Magnequench magnet products.

* This powder, the products that are made there from, and its manufacturing processes are subject to one or more of the following United States Patents: 6,183,572; 6,478,890; 6,527,875; 6,855,265; 6,979,409; 7,087,185; 7,144,463.