

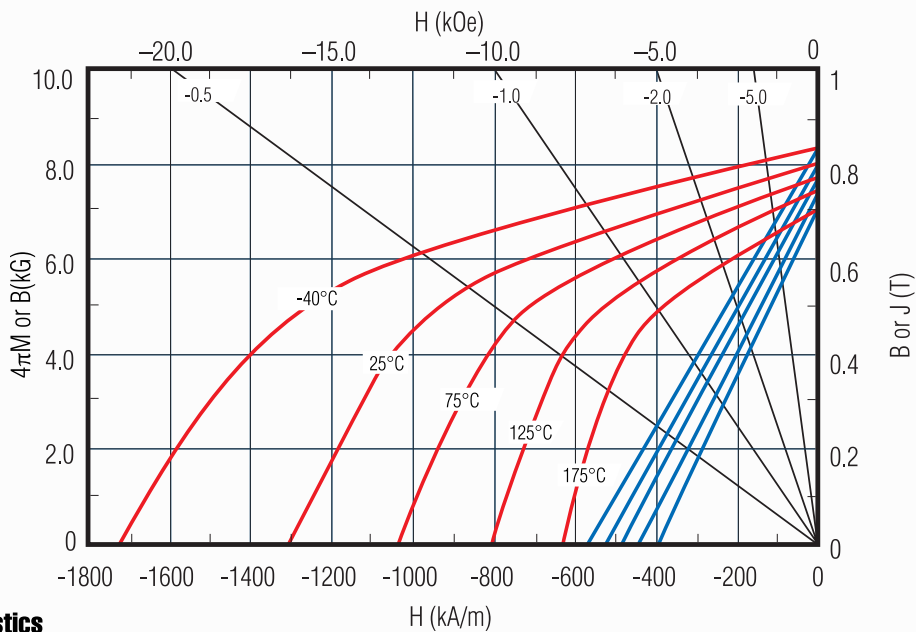
MQP™ - C-20006-070 ISOTROPIC POWDER*
Former Name: MQP-C-13-17

Material Description

MQP-C-20006-070 is an isotropic magnet powder based on a patented Nd-Fe-Co-B alloy that is suitable for the manufacture of bonded magnets. Given its high Curie temperature and high coercivity, it primarily has been used in applications that require both flux and demagnetization protection at elevated service temperature. This material is produced by employing a proprietary rapid solidification process followed by a milling process and heat treatment.

Powder Magnetic Characteristics¹

		<u>SI</u>	<u>CGS</u>
Specified	Residual Induction, B_r	780-820 mT	7.80-8.20 kG
	Energy Product, $(BH)_{max}$	99-111 kJ/m ³	12.5-14.0 MGOe
	Intrinsic Coercivity, H_{ci}	1230-1474 kA/m	15.5-18.5 kOe
Typical	Coercive Force, H_c	520 kA/m	6.5 kOe
	Magnetizing Field to >95% Saturation (Min.), H_s	≥2000 kA/m	≥25 kOe
	Temperature coefficient of B_r , α , to 100°C	-0.07 %/°C	
	Temperature coefficient of H_{ci} , β , to 100°C	-0.4 %/°C	
	Curie Temperature, T_c	470 °C	
	Maximum Operating Temperature ²	120-160 °C	
Maximum Process Temperature ³	200 °C		



Physical Characteristics

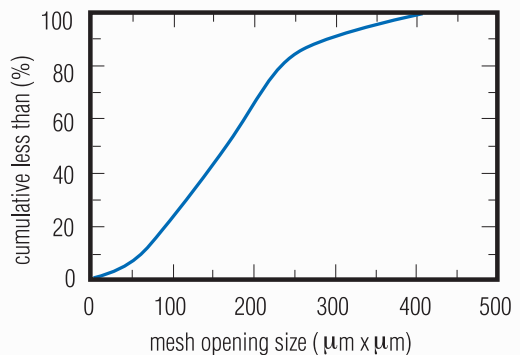
Specified

Sieve Screen Analysis:

- Total > 40 Mesh (420x420 μm opening) < 0.1 wt.%
- Total > 60 Mesh (250x250 μm opening) < 25 wt.%
- Total < 270 Mesh (53x53 μm opening) < 12 wt.%

Typical

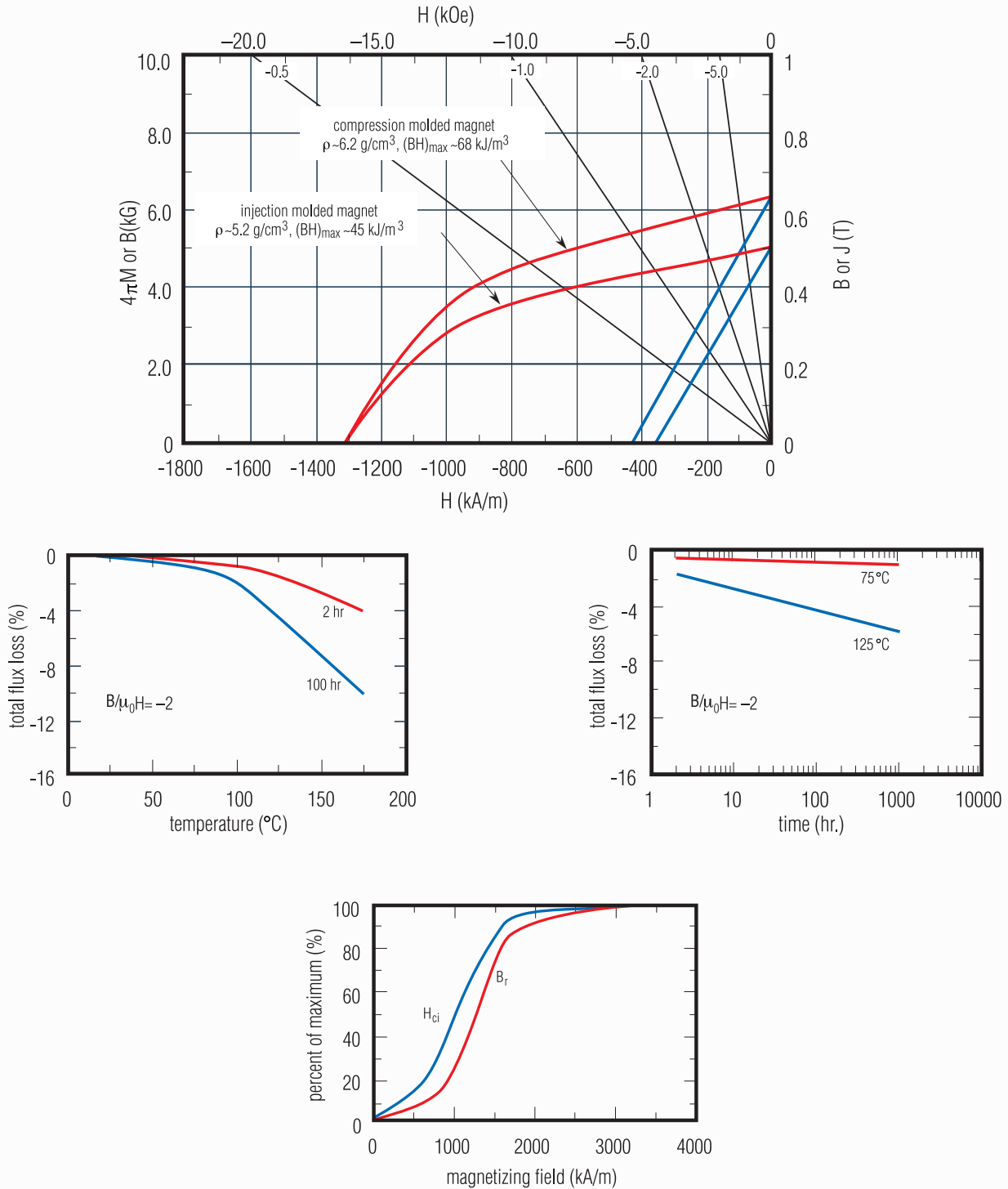
- Density (theoretical) 7.72 g/cm³
- Apparent Density 2.7 g/cm³



* Contact Magnequench to obtain up-to-date product specifications and for assistance in selecting the ideal product for your application.

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Bonded Magnet Characteristics⁴



¹ Properties measured at 25°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 your local sales representative for more information.
³ Maximum Process Temperature is defined here as <2% reduction in flux (i.e. structural loss) after heating powder 1 hour in air.
⁴ These properties are typical at 25°C and are representative only. Bonded magnet properties are dependent upon powder loading and magnet manufacturing conditions. Contact your local sales representative for information about our products.