

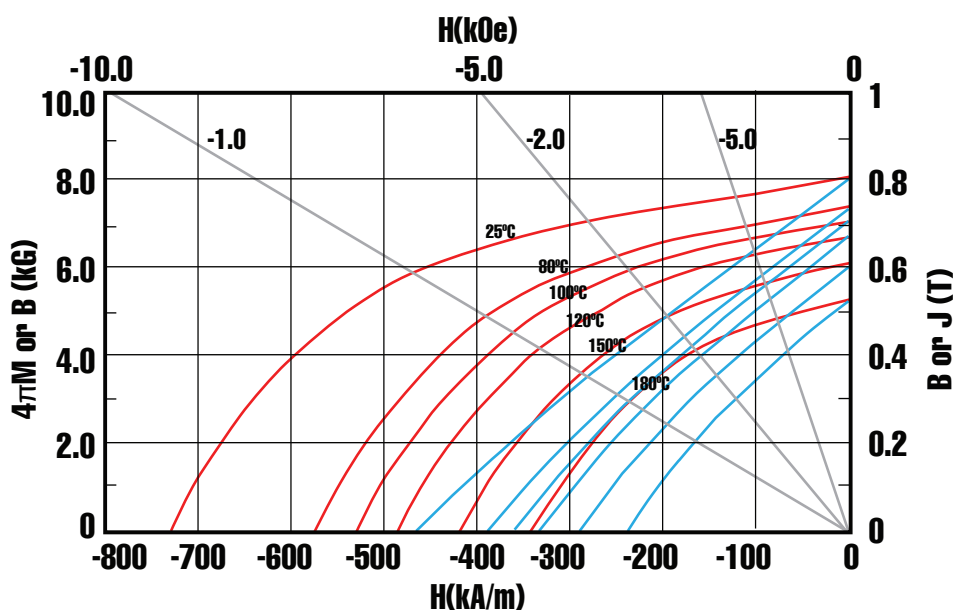
MQP™-13-9-20081-070 ISOTROPIC POWDER*

Material Description

MQP-13-9-20081-070, powder designed for lower flux applications, is an isotropic magnet powder suitable for the manufacturing of bonded magnets. It is based on a patented RE-Fe-B alloy composition that has been cost optimized. This material is produced by employing a proprietary rapid solidification process followed by a milling process and heat treatment.

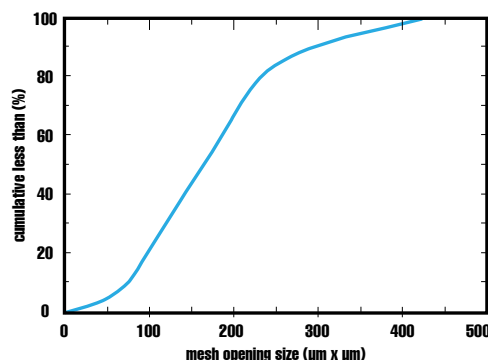
Powder Magnetic Characteristics¹

	SI	CGS
Specified Residual Induction, B_r	795-825 mT.....	7.95- 8.25 kG
Energy Product, $(BH)_{max}$	98-110 kJ/m ³	12.2-13.8 MGOe
Intrinsic Coercivity, H_{ci}	700-780 kA/m.....	8.8-9.8 kOe
Typical Coercive Force, H_c	475 kA/m.....	6.0 kOe
Magnetizing Field to >95% Saturation (Min.), H_s	≥1600 kA/m.....	≥20 kOe
Temperature coefficient of B_r , α , to 100°C.....	-0.16 %/°C	
Temperature coefficient, H_{ci} , β , to 100°C.....	-0.37 %/°C	
Curie Temperature, T_c	274 °C	
Maximum Operating Temperature ²	120-150 °C	
Maximum Process Temperature ³	225-250 °C	



Physical Characteristics

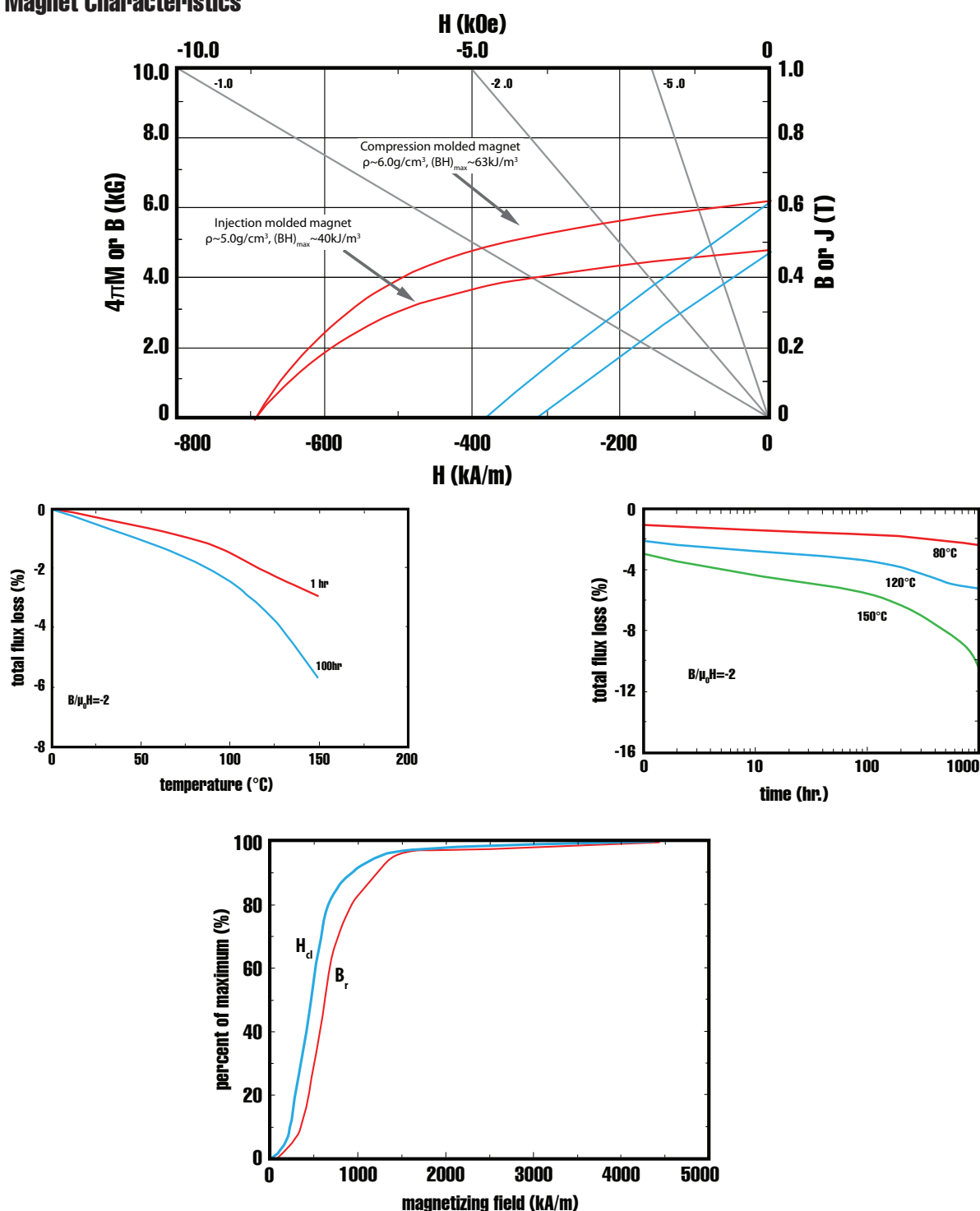
Specified	Sieve Screen Analysis: Total > 80 Mesh (177 x 177 μ m opening)..... < 2 wt. % Total > 100 Mesh (149 x 149 μ m opening)..... < 20 wt. % Total < 270 Mesh (53 x 53 μ m opening)..... < 20 wt. %
Typical	Density (theoretical)..... 7.59 g/cm ³ Apparent Density..... 2.62 g/cm ³



*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.

These powders, the products that are made therefrom, and their manufacturing processes are subject to one of more of the following United States Patents:

5,056,585; 5,172,751; 5,174,362; 5,411,608; 5,645,651; 6,183,572; 6,478,890; 6,979,409; 7,144,463