

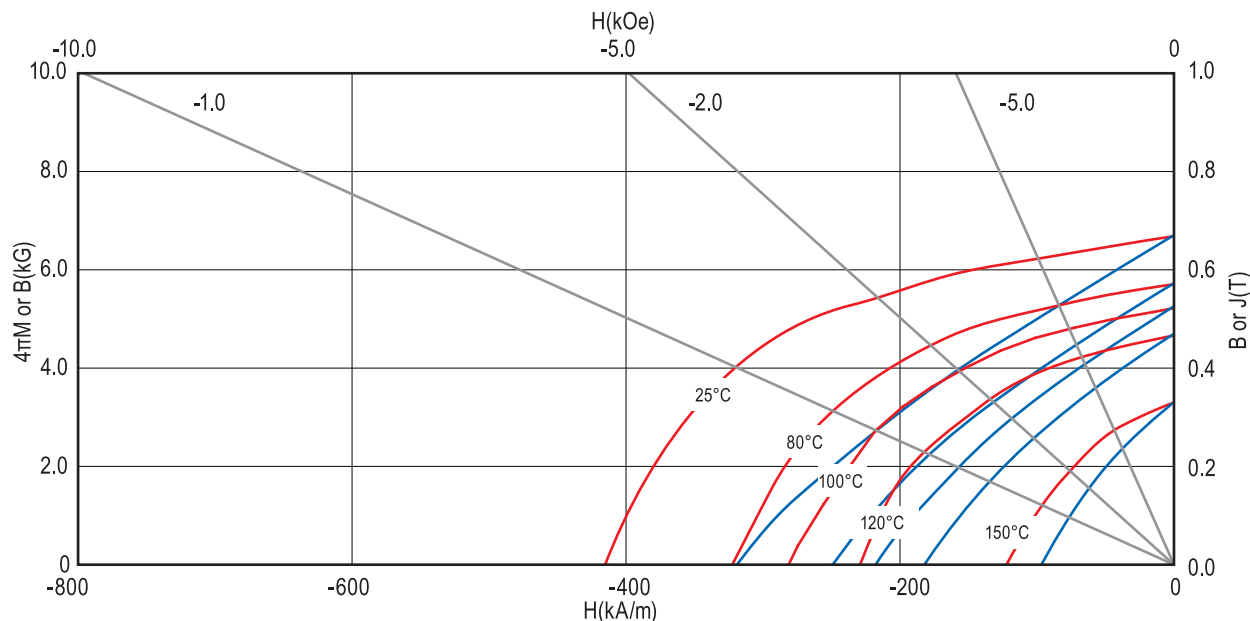
MQP™-8-5-20159-070 Isotropic Powder*

Material Description

MQP-8-5-20159 is a low cost isotropic powder designed for the manufacture of bonded magnets. Because Ce comprises 80% of the total rare earth content in MQP-8-5-20159, this powder grade allows for greater cost stability. Its relatively low Br enables MQP-8-5-20159 to be well-suited for replacing ferrite based applications which typically require magnetic properties of 5MGOe or lower. MQP-8-5-20159 is produced by employing a proprietary rapid solidification process followed by a milling process and heat treatment.

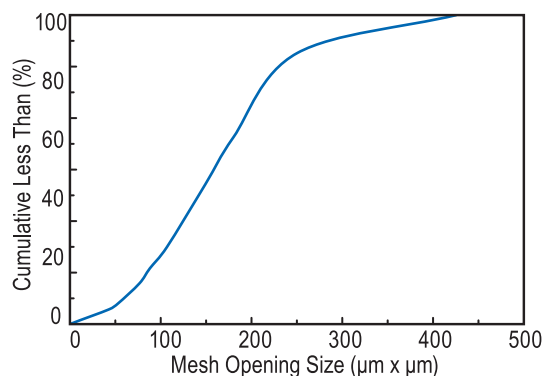
Powder Magnetic Characteristics¹

		SI	CGS
Specified	Residual Induction, B_r	665-685	mT 6.65-6.85
	Energy Product, $(BH)_{max}$	59-69	kJ/m ³ 7.4-8.7
	Intrinsic Coercivity, H_{ci}	380-440	kA/m 4.7-5.5
Typical	Magnetizing Field to ≥ 95% Saturation H_s	≥ 1115	kA/m ≥ 14.0
	Temperature coefficient of B_r , α , to 100° C	-0.28	%/°C
	Temperature coefficient of H_{ci} , β , to 100° C	-0.43	%/°C
	Coercive Force, H_c	325	kA/m 4.1
	Curie Temperature, T_c	186	°C
	Maximum Operating Temperature ²	100-110	°C
	Maximum Process Temperature ³	175-200	°C



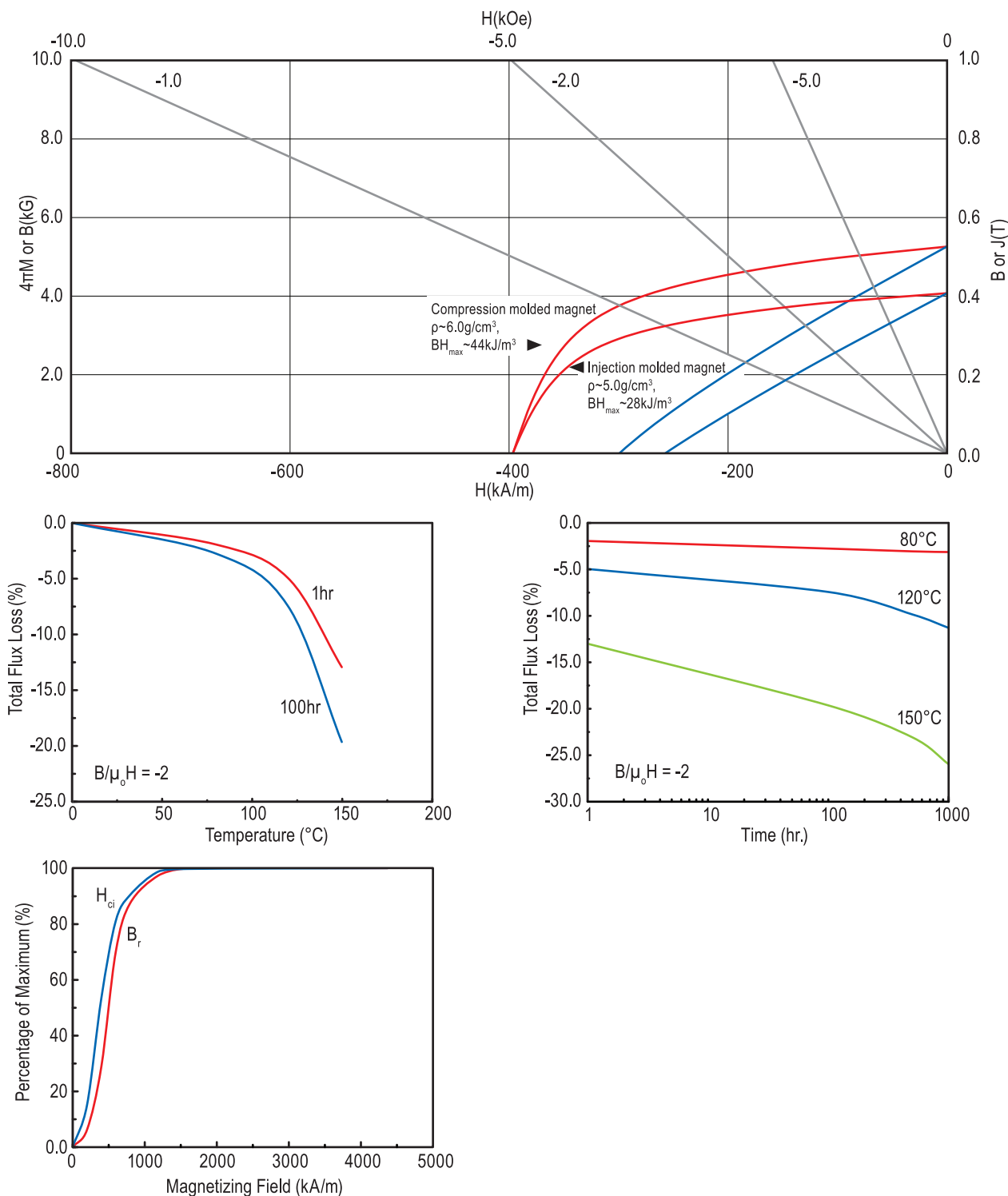
Physical Characteristics

Specified	Sieve Screen Analysis:	
	Total > 40 Mesh (420x420μm opening)	< 0.1wt%
	Total > 60 Mesh (250μm x 250μm opening)	< 25wt%
	Total < 270 Mesh (53μm x 53μm opening)	< 12wt%
Typical	Density (theoretical)	7.66 g/cm ³
	Apparent Density	2.70 g/cm ³



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

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 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°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.