MQP™-13-9-20063-070 ISOTROPIC POWDER*

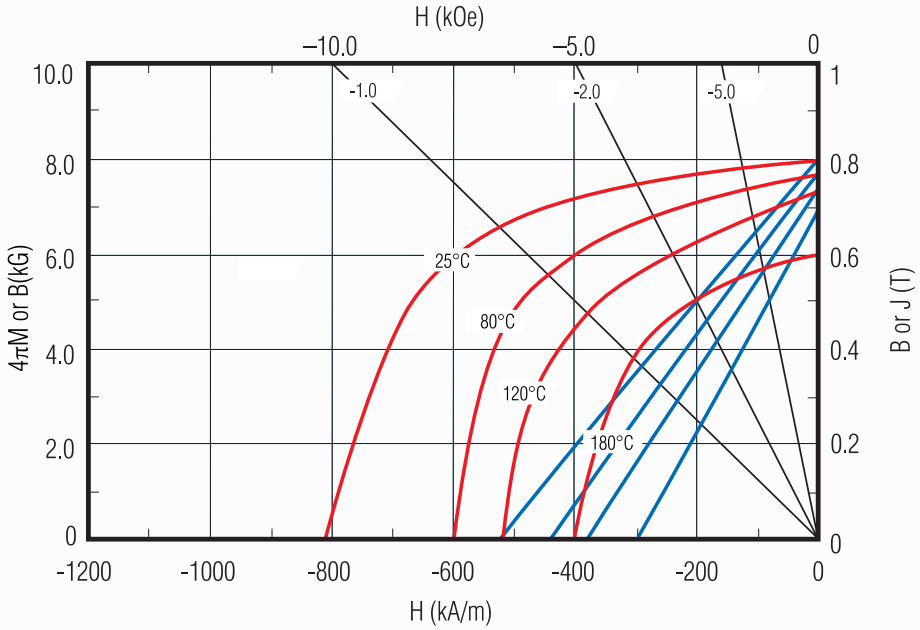
Former Name: MQP-13-9R2

Material Description

MQP-13-9-20063-070 is a low cost powder with equivalent magnetic performance with other powder grades in the MQP-13-9 series. In addition to spindle motors and other motors, MQP-13-9-20063-070 is ideal for cost sensitive ferrite replacement applications, such as CPU cooling fans, box fans and other similar applications. It is an isotropic magnet powder suitable for the manufacture of bonded magnets. MQP-13-9 -20063-070 is based on a patented REFe-B composition that has been designed to include lower cost rare earth elements such as lanthanum. This material is produced by employing a proprietary rapid solidification process followed by a milling process and heat treatment.

Powder Magnetic Characteristics[1]

		SI		CGS	
Specified	Residual Induction, B_r	795-825	mT	7.95-8.25	kG
	Energy Product, $(BH)_{max}$	100-112	kJ/m³	12.6-14.1	MGOe
	Intrinsic Coercivity H_{ci}	720-800	kA/m	8.7-9.7	kOe
Typical	Coercive Force, H_c	505	kA/m	6.3	kOe
	Magnetizing Field to >95% Saturation (Min.), H_s	≥1600	kA/m	≥20	kOe
	Temperature coefficient of B_r, α, to 100°C	-0.14	%/°C		
	Temperature coefficient of H_{ci}, ß, to 100°C	-0.36	%/°C		
	Curie Temperature, T_c	295	°C		
	Maximum Operating Temperature[2]	130-160	°C		
	Maximum Process Temperature[3]	250	°C		



Physical Characteristics

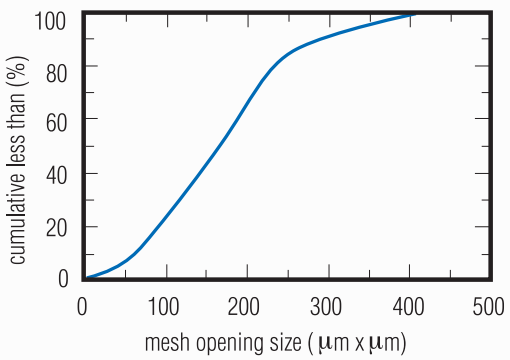
Specified

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)	7.48	g/cm³
Apparent Density	2.60	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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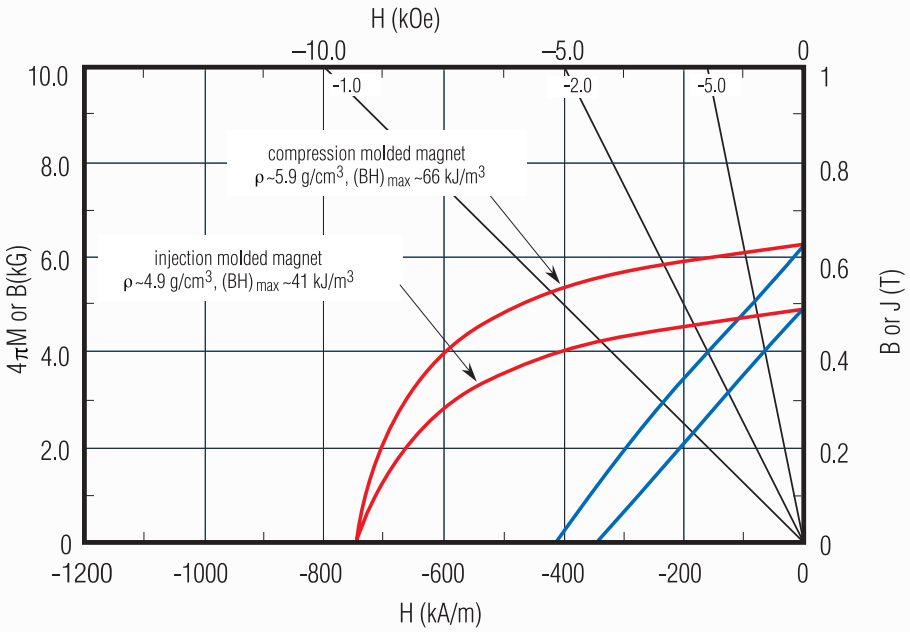
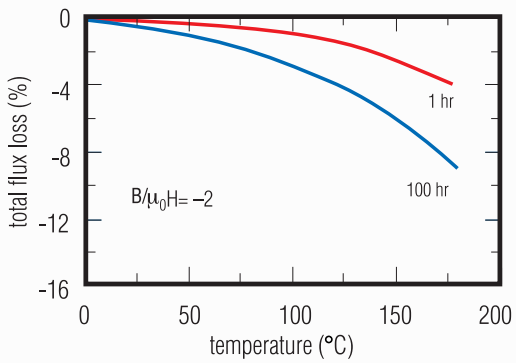
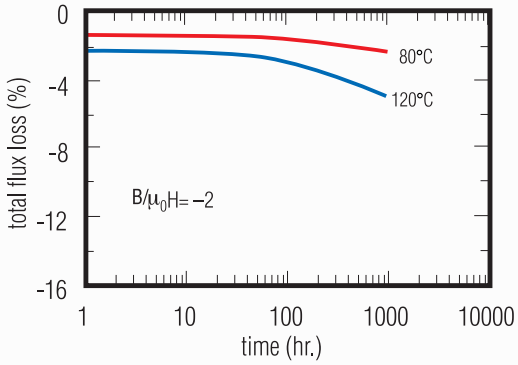
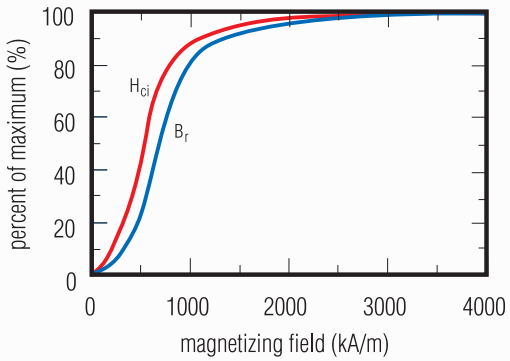
Bonded Magnet Characteristics[4]









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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.