

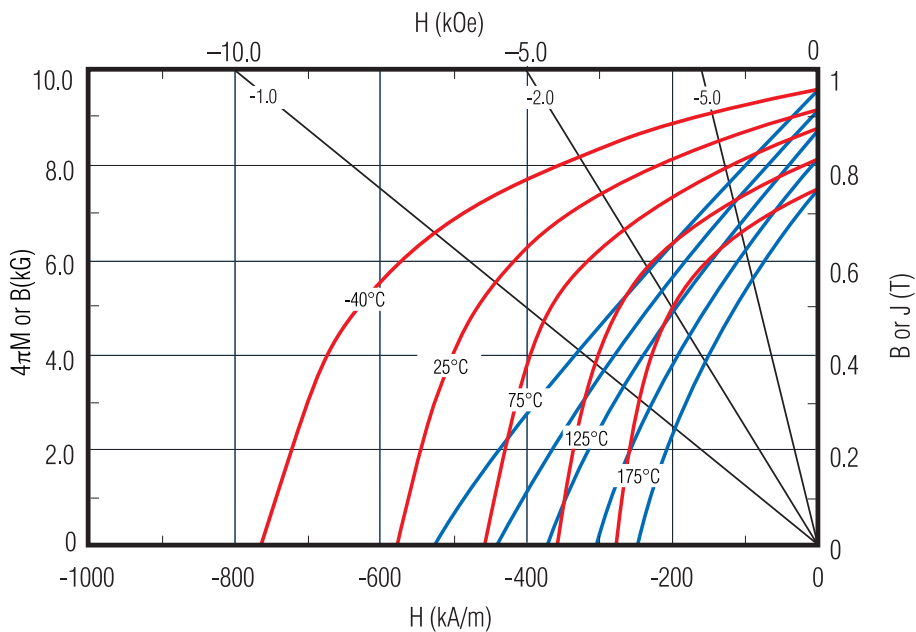
# MQP™ -15-7 -10271-070 ISOTROPIC POWDER\*

## Material Description

MQP-15-7-10271-070 is an isotropic magnet powder suitable for the manufacture of bonded magnets. It is based on a patented Nd-Fe-Co-B alloy composition that results in a lower intrinsic coercivity which is ideal for certain micro-motors and smaller sized stepper motors. This material is produced by employing a proprietary rapid solidification process followed by a milling process and heat treatment.

## Powder Magnetic Characteristics<sup>1</sup>

	SI	CGS
<b>Specified</b>		
Residual Induction, $B_r$ .....	900-930 mT .....	9.00-9.30 kG
Energy Product, $(BH)_{max}$ .....	115-123 kJ/m <sup>3</sup> .....	14.5-15.5 MGOe
Intrinsic Coercivity, $H_{ci}$ .....	510-640 kA/m .....	6.5-8.0 kOe
<b>Typical</b>		
Coercive Force, $H_c$ .....	440 kA/m .....	5.5 kOe
Magnetizing Field to >95% Saturation (Min.), $H_s$ .....	≥1600 kA/m .....	≥20 kOe
Temperature coefficient of $B_r$ , $\alpha$ , to 100°C .....	-0.11 %/°C	
Temperature coefficient of $H_{ci}$ , $\beta$ , to 100°C .....	-0.4 %/°C	
Curie Temperature, $T_c$ .....	325 °C	
Maximum Operating Temperature <sup>2</sup> .....	80-120 °C	
Maximum Process Temperature <sup>3</sup> .....	200 °C	



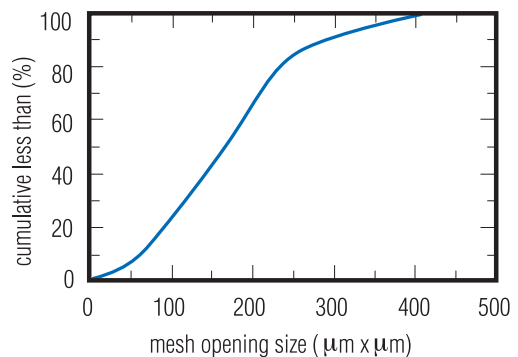
## Physical Characteristics

### 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

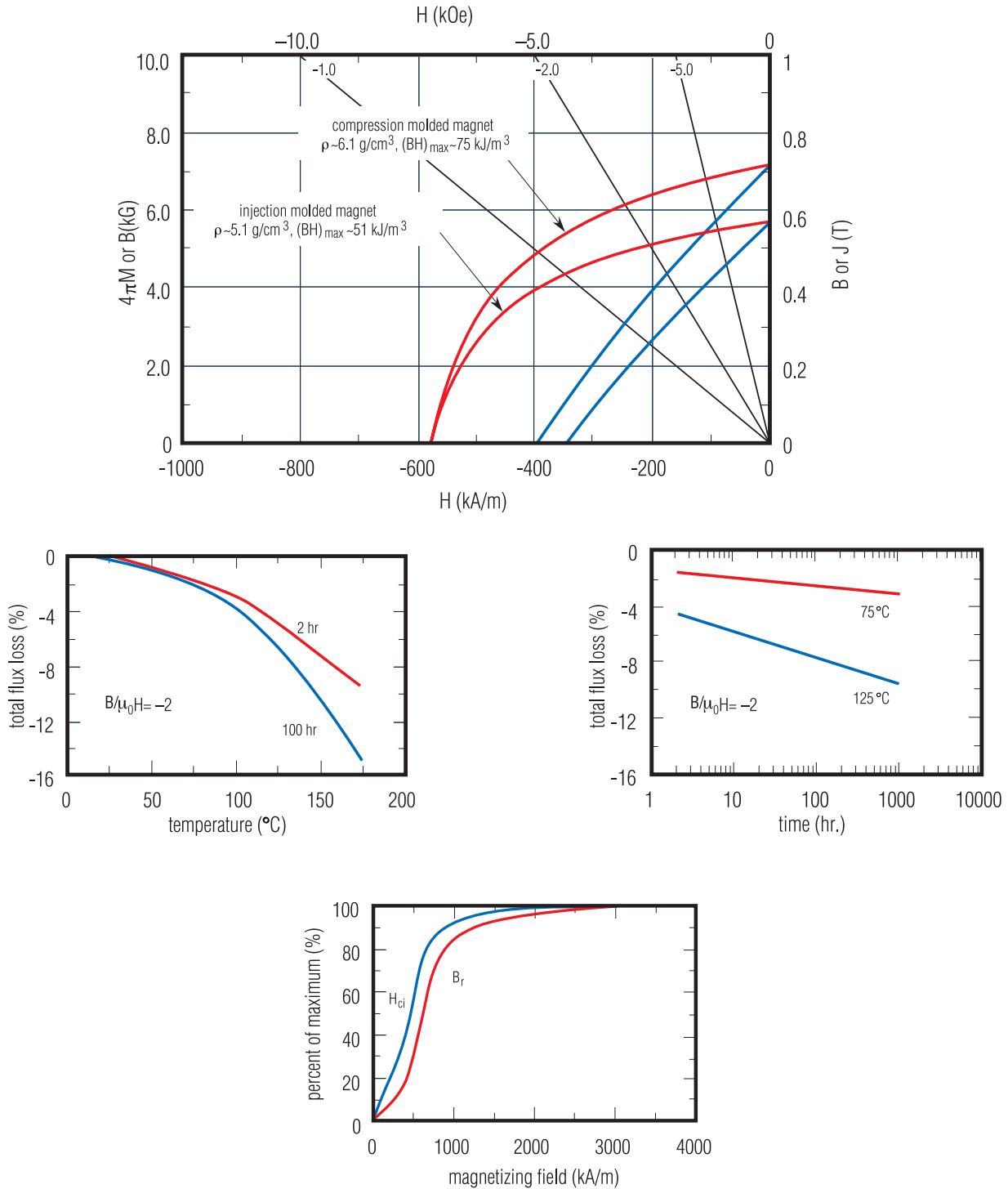
Density (theoretical) ..... 7.63 g/cm<sup>3</sup>  
 Apparent Density ..... 2.7 g/cm<sup>3</sup>



\* 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<sup>4</sup>**



<sup>1</sup> Properties measured at 25°C, unless otherwise specified.  
<sup>2</sup> 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.  
<sup>3</sup> Maximum Process Temperature is defined here as <2% reduction in flux (i.e. structural loss) after heating powder 1 hour in air.  
<sup>4</sup> 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.