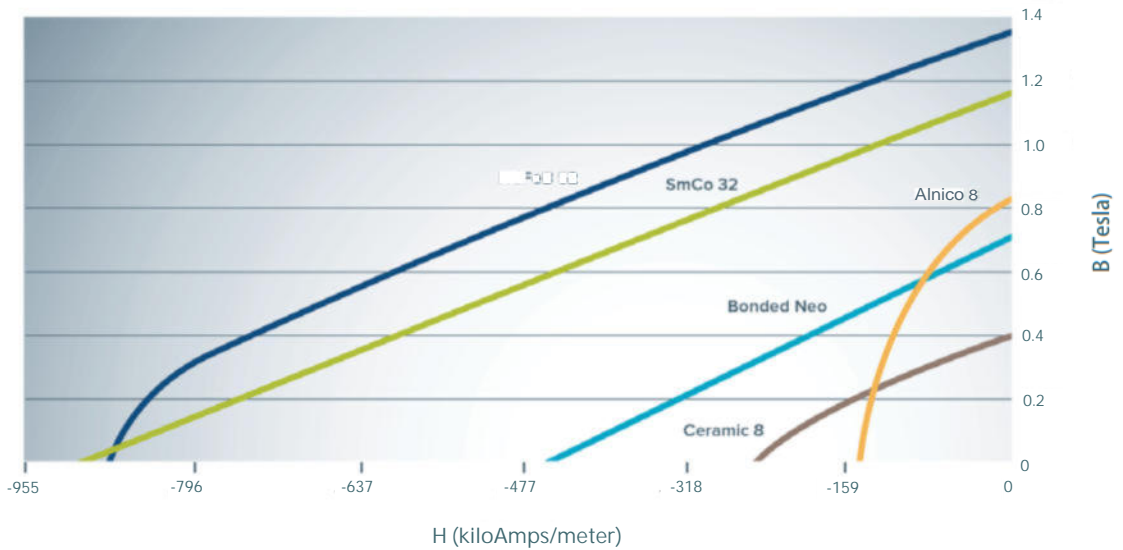


# Magnet Materials Overview

**DEXTER BENEFITS AT A GLANCE:**

- > ISO: 9001:2015
- > AS9100D
- > Clean Room Class 10000 (ISO7)
- > Patented Magnetic Technology
- > Flexible Manufacturing
- > Component-level Traceability

There are a number of major families of permanent magnet materials commercially available. They range from ferrite, which is low cost and low energy, to rare earth materials, which are more expensive and offer higher performance. Many factors affect the choice of magnetic material, such as operating temperature, size, weight constraints, environmental concerns and required magnetic energy. More information on our specific magnet materials is available online.



**ABOUT DEXTER**

Dexter Magnetic Technologies is the global leader in specification, design and fabrication of magnetic products and assemblies. Since its founding in 1951, solutions designed by Dexter have and continue to positively impact our world daily – from life-saving medical devices to intelligent optics.

As the essential magnetic system partner, our teams of engineers and support staff are dedicated to delivering innovative technological solutions and services through a powerful combination of engineering and manufacturing expertise.

	Material	Maximum Operating Temperature	Maximum Magnetic Energy Product	Resistance to Demagnetization
■	Neodymium Iron Boron (Nd-Fe-B)	200°C	413.8 kJ/m <sup>3</sup>	Very High
■	Samarium Cobalt (Sm-Co)	300°C	254.6 kJ/m <sup>3</sup>	Very High
■	Alnico	550°C	79.6 kJ/m <sup>3</sup>	Low
■	Bonded Nd-Fe-B	150°C	79.6 kJ/m <sup>3</sup>	High
■	Ceramic (Hard Ferrite)	300°C	31.8 kJ/m <sup>3</sup>	Moderate

**Need help in selection?**

Our sales and engineering teams are trained to assist with the proper selection of permanent magnet material to optimize your application while working within your budget.

