

# Cobalt Iron FeCo49V2

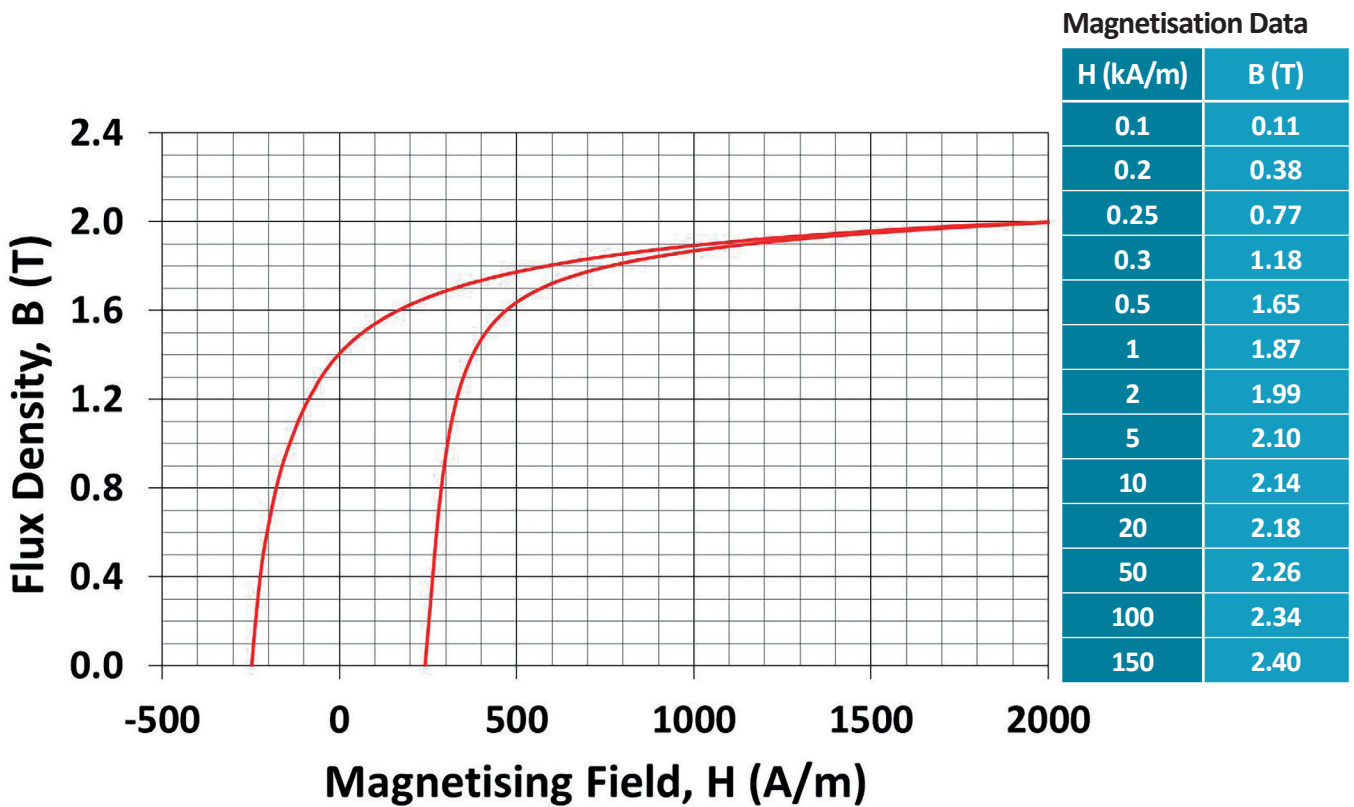
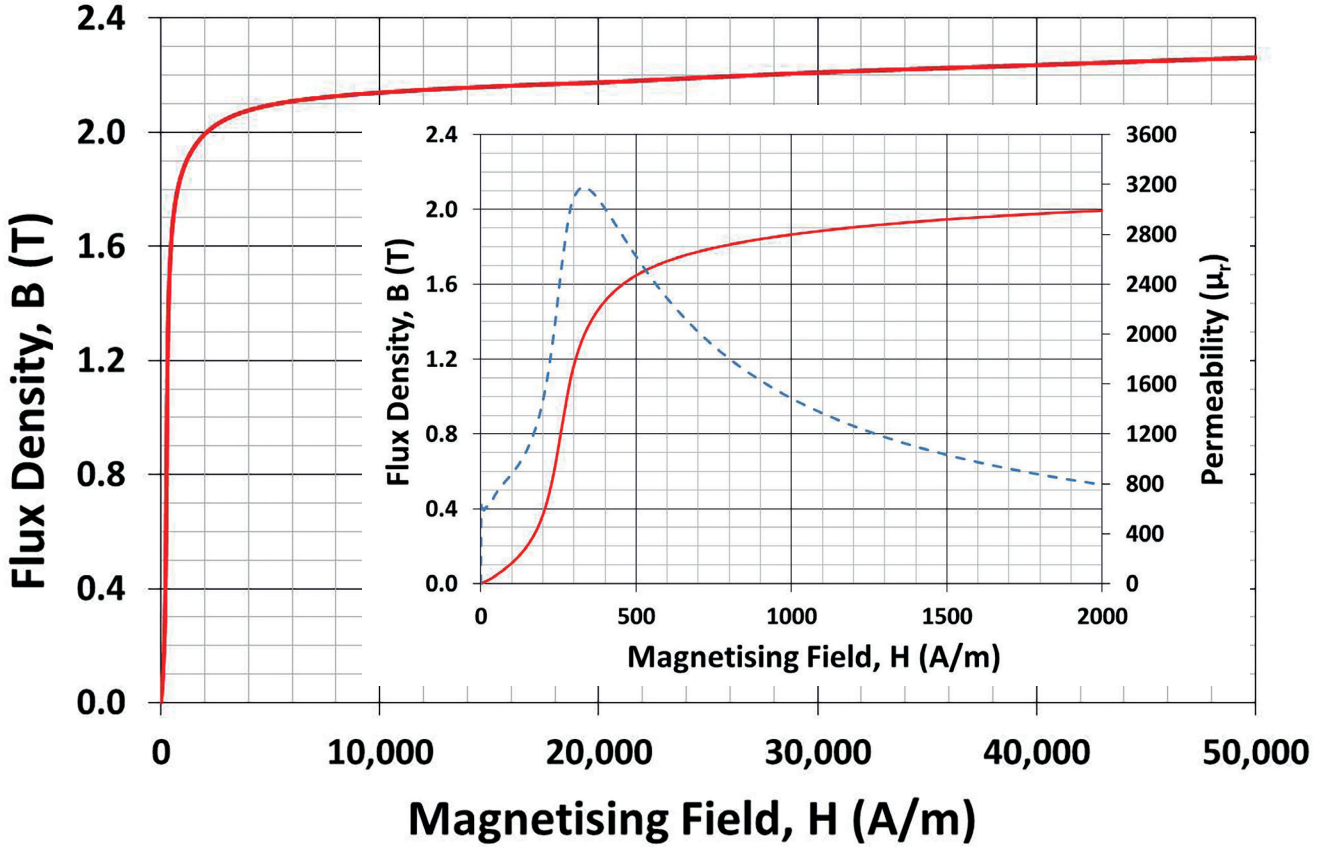
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Product data sheet



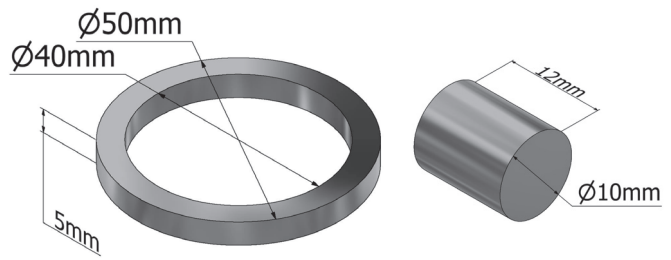
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## ➤ Magnetic Properties



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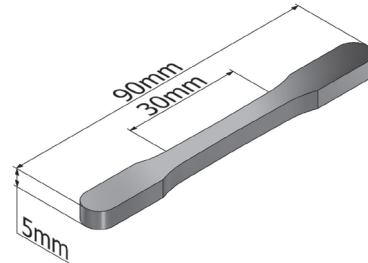
Jsat	2.20 T
Max Permeability ( $\mu$ max)	3,200
Remanence (Br)	1.40 T
Coercivity (Hc)	250 A/m
Resistivity	46 $\mu\Omega$ .cm



Ring used to obtain magnetic data and test bar used to obtain high field data

## ➤ Mechanical Properties†

Yield Strength, $R_{p0.2}$	250 MPa
Tensile Strength, $R_m$	350 MPa
Modulus of Elasticity, E	215 GPa
Elongation at Fracture, A	3%
Hardness	200 $Hv_{30}$



Dog Bone used for Tensile Testing

## ➤ General Properties

Density ( $\rho$ )	7.9 g/cm <sup>3</sup>
Thermal Expansion	9.6 x10 <sup>-6</sup> /K
Thermal Conductivity	30 W/m.k
Curie Temp, $T_c$	950°C
Corrosion Resistance	Good

## ➤ Further Information

SG Technologies produces components using proprietary Ultra High Density moulding and heat treatment. These processes may be followed by grinding, machining and deburring. The parts we produce in this way may or may not need further annealing. In the case that they do, the dimensional change which affects solid-turned FeCo49% does not occur.

**Individual components** can be tested using our magnetic component verification techniques to assure quality control for transient electromagnetic performance.

\*Determined following IEC404-4

†Determined following MPIF standard 10 tensile test bar

For all further information and data regarding the production of finished parts please contact us at SG Technologies:

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