

# SMC 700-3

## Soft Magnetic Composite

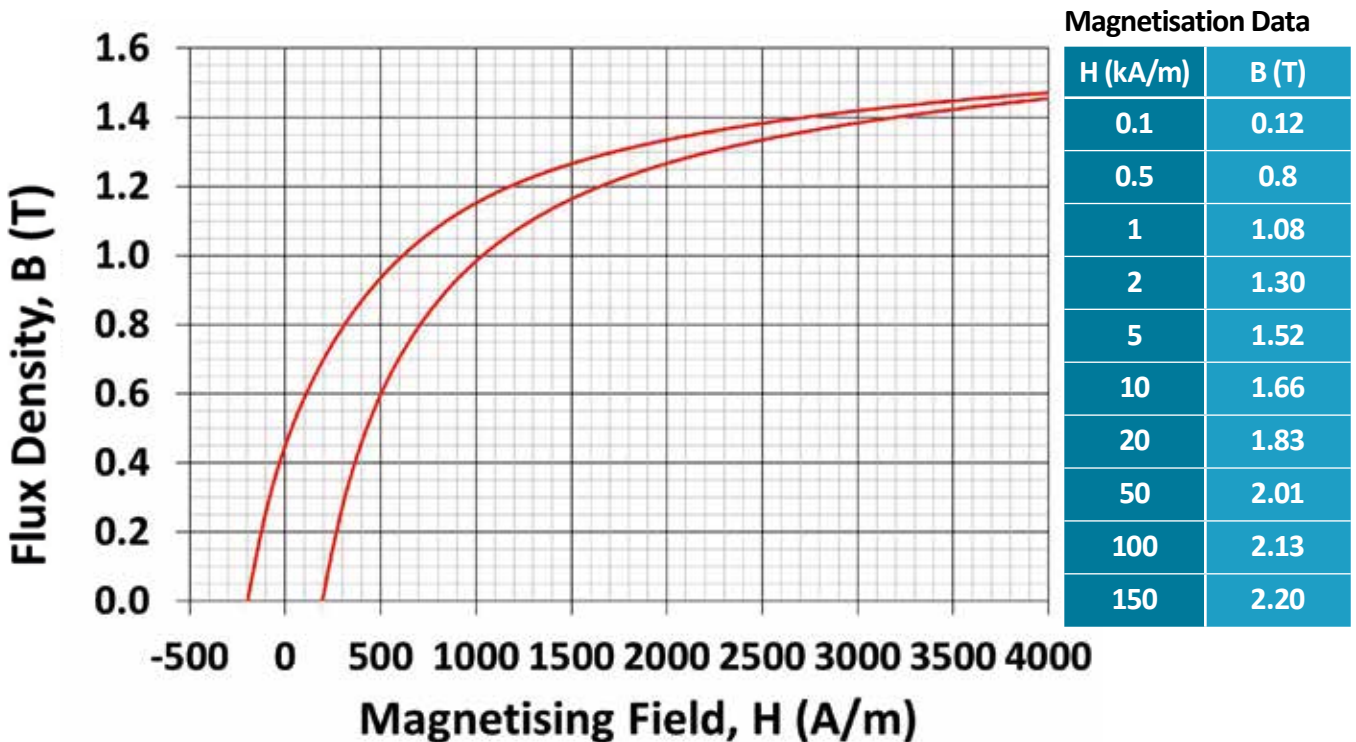
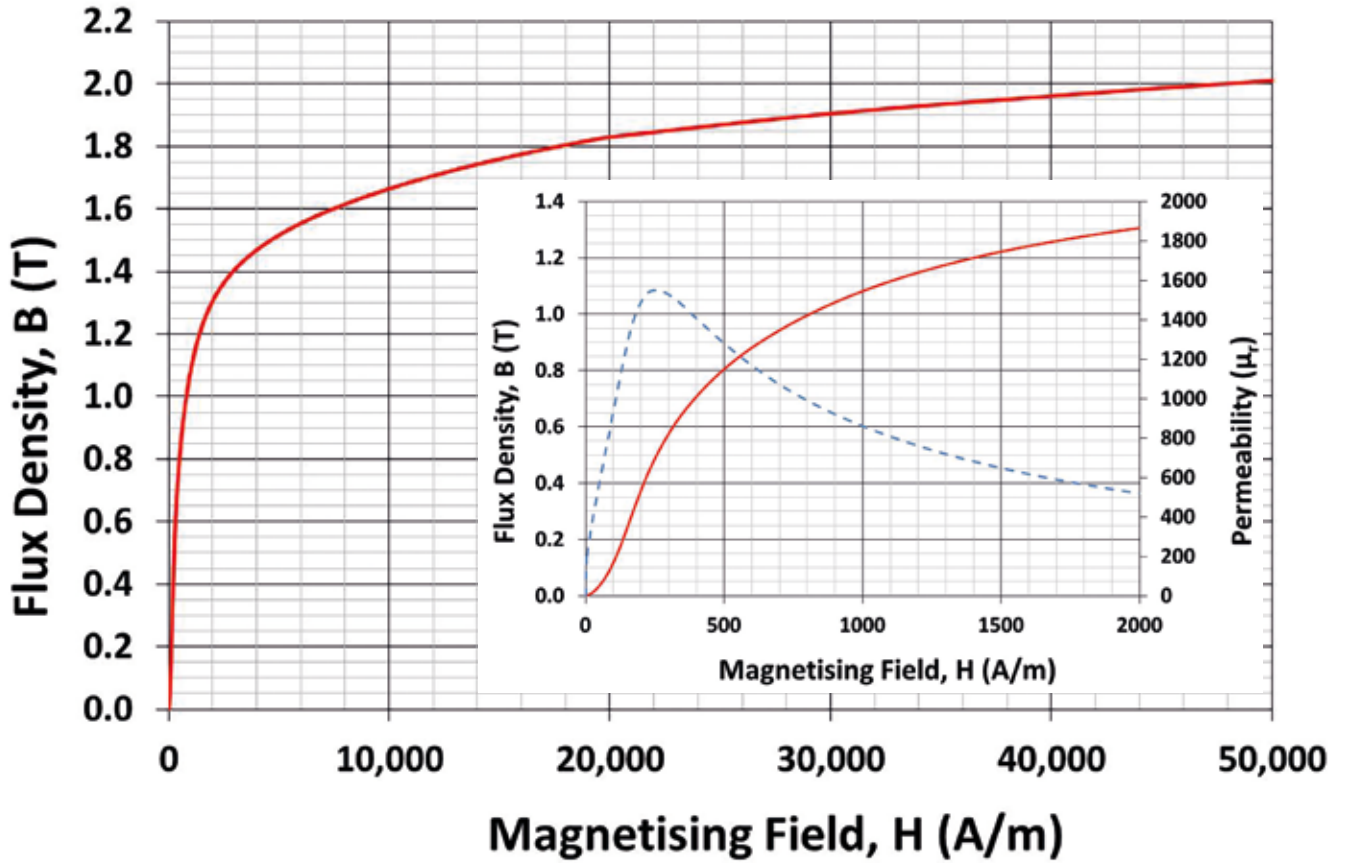
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Product data sheet



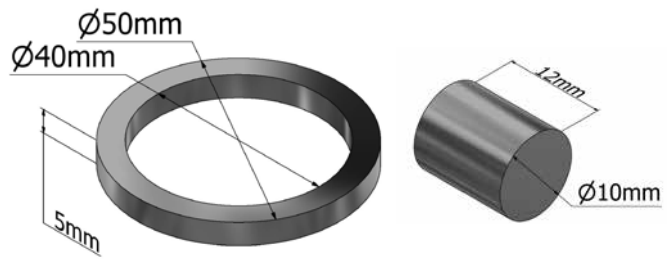
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## ► Magnetic Properties



## ➤ Magnetic Properties\*

Jsat	2.01 T
Max Permeability ( $\mu$ max)	1,550*
Remanence (Br)	0.45 T
Coercivity (Hc)	195 A/m
Resistivity	~22,000 $\mu\Omega$ .cm

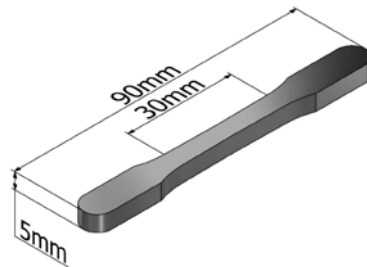


Ring used to obtain magnetic data and test bar used to obtain high field data

\*Anhysteretic BH measurements

## ➤ Mechanical Properties†

Flexural Strength	125 MPa
Yield Strength, $R_{p0.2}$	65 MPa
Tensile Strength, $R_m$	65 MPa
Modulus of Elasticity, E	190 GPa
Hardness	42 HRB



Dog Bone used for Tensile Testing

## ➤ General Properties

Density ( $\rho$ )	7.62 g/cm <sup>3</sup>
Thermal Expansion	11x10 <sup>-6</sup> /K
Thermal Conductivity	25 W/m.K

## ➤ Further Information

SMC 700-3 is suitable for applications where the highest induction is required, combined with high electrical resistivity.

SG Technologies produces SMC components using ultra dense powder compaction and proprietary heat treatment. Finishing operations can include grinding, edge conditioning and deburring.

Individual components can be tested using our magnetic component verification techniques. This assures 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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