



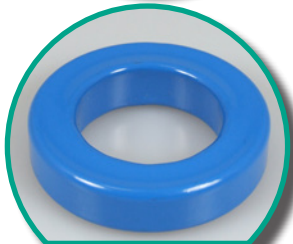
Super MSS™



Hi-Flux™



Molypermalloy



Iron Silicon



Iron Powder

PACE

POWER MAGNETICS
DIVISION

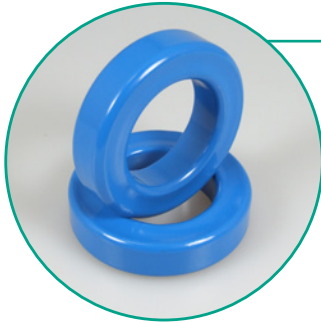
Distributor of Components
to the Coil Winding Industry



Powder Cores



Power Magnetism offers the full range of Micrometals Iron Powder Cores and Micrometals Arnold Alloy Powder Cores. Please visit our website to cross-reference Magnetics Inc. or CSC part numbers or to download design software. Technical advice and guidance on core selection is available.



Super MSS™ Cores (Sendust Powder Cores)

(Equivalent to Magnetics Kool Mu™)

Composition 85% Iron, 9% Silicon, 6% Aluminium

Permeabilities up to 125

Low loss (200 mW/cm³)

Operating Frequency 25KHz to 500KHz

B_{sat} (Tesla) 1.0

Curie temperature 600°C

Stable performance with temperature variation

Offers lower transformer operating temperature than Iron Powder

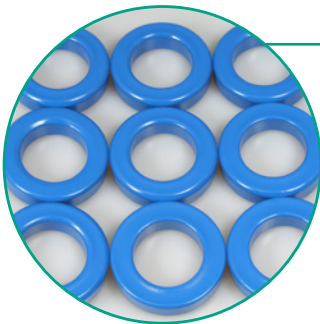
Low magnetostriction (low audible noise)

Variety of shape formats available

Not subject to thermal ageing

Relative cost - Low

Applications: Switch-Mode power supply; Energy storage filter applications + others



Hi-Flux™ Powder Cores

Composition 50% Nickel, 50% Iron

Permeabilities up to 160

Low loss (260 mW/cm³)

Moderate losses ≤ 200KHz

B_{sat} (Tesla) 1.5

Curie Temperature 500°C

Stable performance with temperature variation

Available in toroidal form only (up to 132mm dia)

Not subject to thermal ageing

Relative cost - Moderate

Applications: Excellent in PFC circuits and unidirectional drive applications - due to low residual flux concentration. SMPS Energy storage filter inductors + others

Molypermalloy – MPP Powder Cores

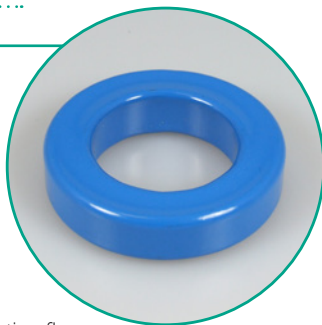
Composition 81% Nickel, 17% Iron, 2% Molybdenum
 Permeabilities up to 350
 Lowest loss (120 mW/cm³)
 Operating frequency \leq 200 KHz
 B_{sat} (Tesla) 0.755
 Curie temperature 400°C
 Stable performance with temperature variation
 Lowest magnetostriction (audible noise) of any Powder Core
 Available in toroidal form only (up to 132mm dia.)
 High Q plus high inductance stability; Low inductance swing
 when DC bias applied.
 Not subject to thermal ageing
 Relative cost – High



Applications: Line output transformers; PFC Inductors; In line noise filters + others

Iron Silicon (Fe-Si™) Powder Cores

Composition 93.5% Iron, 6.5% Silicon
 Permeabilities up to 147
 Low losses \geq 100 kHz
 Low loss (300mW/cm³)
 Operating frequency to 1 MHz
 B_{sat} (Tesla) 1.5
 Curie Temperature 500°C
 Stable performance with temperature variation
 Variety of shape formats available
 Ideal for higher power densities – due to a combination of high saturation flux
 density and high DC bias.
 Not subject to thermal ageing
 Relative cost - Low



Applications: SMPS choke inductors; PFC Inductors; VRM Inductors + others

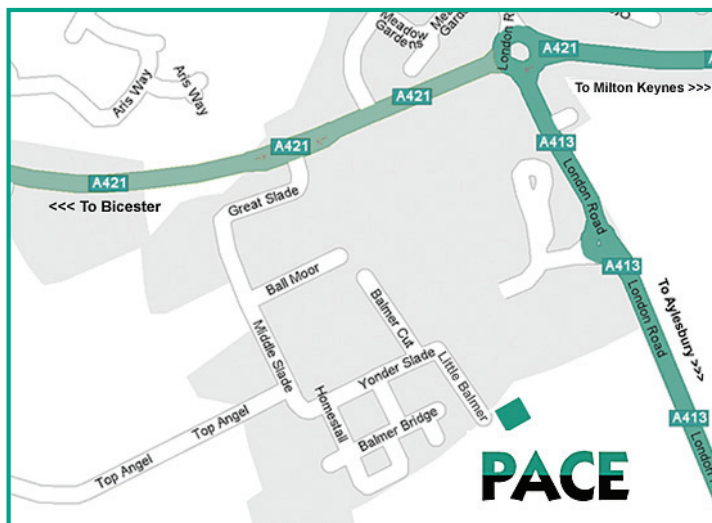
Iron Powder Cores

Composition >99% Iron
 Permeabilities up to 100
 High losses (840 mW/cm³)
 Operating frequency to > 100 KHz
 B_{sat} (Tesla) 1.5
 Curie Temperature 770°C
 Shape formats: Toroidal; E core; bobbin core; etc.
 Relative cost – Lowest of all Powder Cores



Applications: Typically used for DC output chokes, differential mode input chokes, PFC inductors Etc.

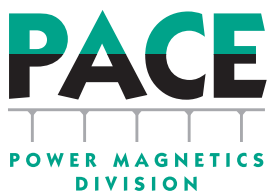
RF cores are available for Radio Frequency applications.



Power Magnetics is a division of PACE Components Ltd and is a specialist distributor to the coil winding industry. We stock a large range of components, including Ferrites, Coil Formers, Mounts & Headers and Furukawa Triple Insulated Wire.

Power Magnetics is an authorised distributor for Micrometals and Micrometals-Arnold Powder Core products.

Please visit our website or phone us for more information or to request our full brochure.



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