CarTech® Hypocore™ Alloy

COMPOSITION (NOMINAL)

C	Co	Mn	Si	Cr	Fe
.005	5.00	1.00	2.30	0.30	Balance

CarTech Hypocore alloy, offers performance benefits between those found in Carpenter's high performance, high cobalt content magnetic material, CarTech Hiperco® family alloys, and commercial silicon-base alloys.

This new electrical steel alloy can provide lower core loss compared to CarTech Hiperco family alloys. Compared to Si steels, the alloy provides higher induction, even at a low applied magnetic field. Additionally, the alloy can be used at higher frequencies with less heat generation. CarTech Hypocore alloy exhibits properties such as low coercivity, high permeability, and high electrical resistivity which helps motors and generators operate more efficiently.

CarTech Hypocore alloy offers potential benefits to next generation electrical machines and electromagnetic devices such as laminations or assembled cores for small machines where increasing efficiency and reducing size is important.

MECHANICAL PROPERTY DATA

0.2% YS (ksi/MPa)	42/290
UTS (ksi/MPa)	57/393
% Elongation	10
Saturation Induction	21 kG
Electrical Resistivity	52 μΩ.cm
Corecivity	0.28 Oe

BENEFITS

- High induction at low fields
- Low core loss

PRODUCT FORMS

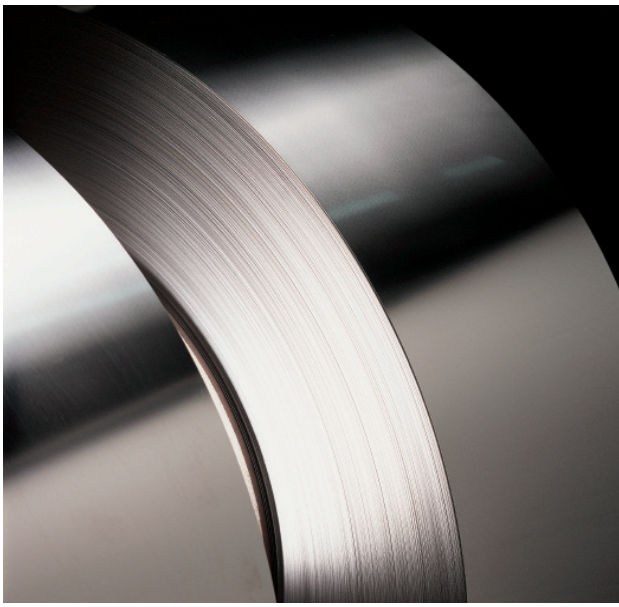
Strip - .002" to .200"

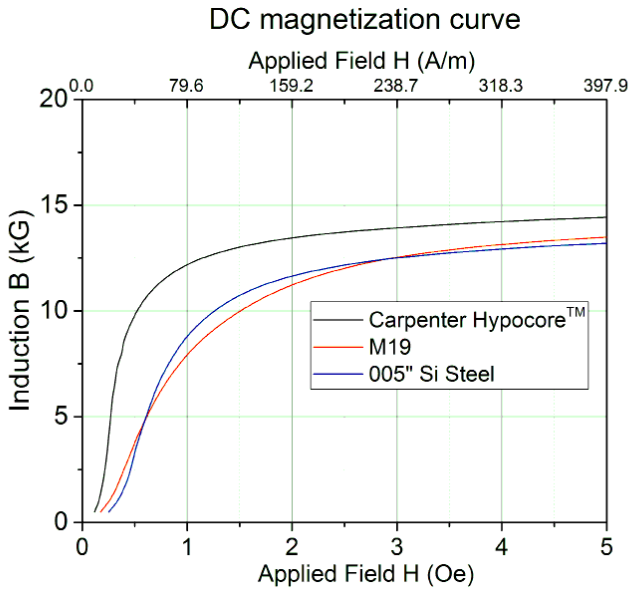
SPECIFICATIONS

US Patent Pending

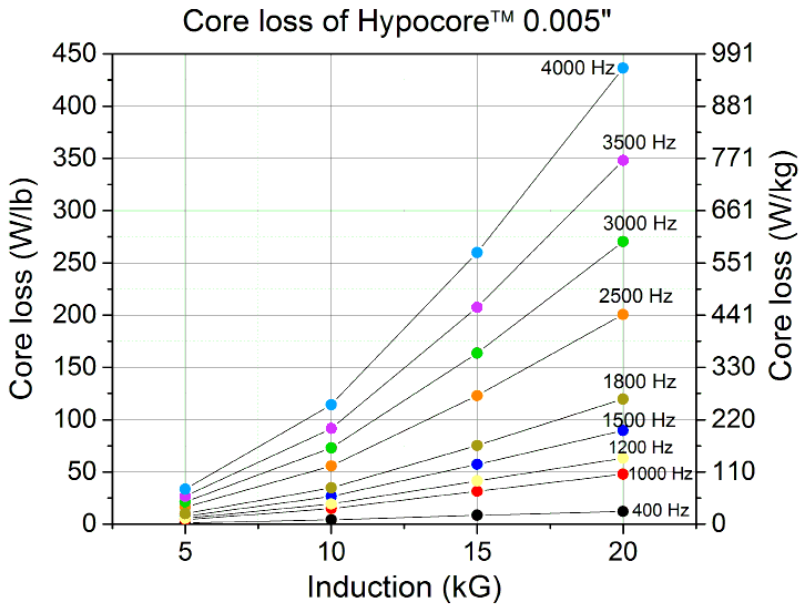
APPLICATIONS

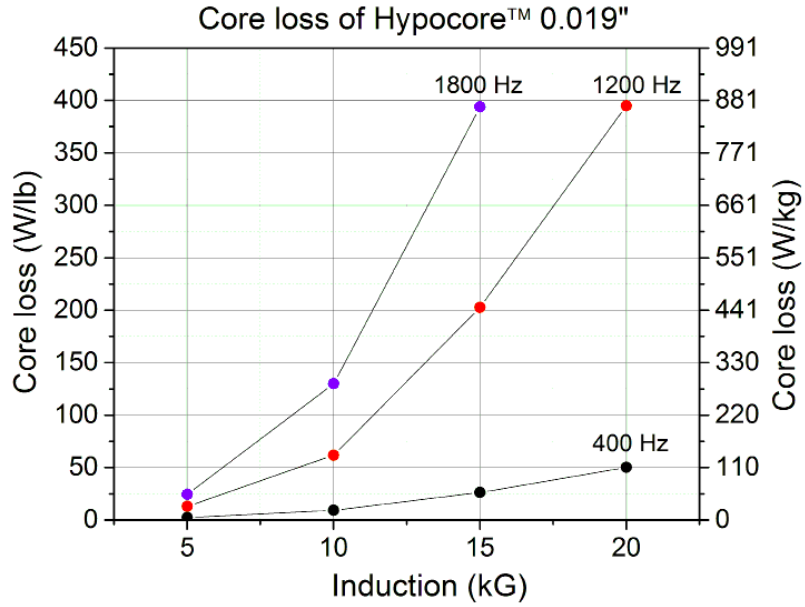
- Laminations or assembled cores for electromagnetic devices.





CORE LOSS OF FULLY PROCESSED MATERIAL





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09/16 P201