The work of Allied Corporation in this field has led to their introduction of METGLAS alloys. The material is normally in the form of ribbon which is then wound into a strip-wound core. METGLAS alloys are inherently thin, about 1 mil, extremely hard, over C-80 Rockwell, but very soft magnetically.

METGLAS Alloy 2605SC provides an attractive high magnetic induction material for a wide variety of magnetic applications. In an uncut form, it is essentially a square loop material comparable to Orthonol® material. In cut form and appropriately annealed, this alloy yields a material with a rounded B-H loop and magnetic properties similar to the higher nickel contained alloys (80 Permalloys). Core losses are comparable to Supermalloy and ferrites at frequencies to 100 KHz (see reverse side). The special advantage of high induction (about 2 times the 80 Permalloys) makes the alloy very attractive in high frequency magnetic core devices where ruggedness and low weight are important.

Cut "C" cores made with METGLAS 2605SC Alloy are available in a wide range of sizes as described in Magnetics Catalog MCC-100.
Typical Core Loss Curves
MAGNETICS® Core MC8100-1B
(METGLAS 2605SC Material)

How to order METGLAS Alloy 2605SC cut cores

Each core is coded by a part number that describes it in detail. Knowing the code will simplify purchasing. A typical number is:

```
MC 0006 1 B
```

(a) MC is used for cut C cores.
(b) The size code is the four digit number listed on pages 6 to 10, Magnetics catalog MCC-100.
(c) Material thickness (nominally 1 mil).
(d) The letter code for 2605SC material is "B".

METGLAS Alloy 2605SC
Typical Properties*

**MAGNETIC PROPERTIES**

- Saturation Magnetization, $B_s$: 16.1 KG
- Coercive Force, $H_C$: 0.04 Oe
- Residual Induction, $B_r$: 14.2 KG
- Induction at 1 oersted: 15.4 KG
- Curie Temperature: 370 °C

**PHYSICAL PROPERTIES**

- Density: 7.3 g/cm³
- Stacking Factor: >.75
- Continuous Service Temperature: −50 °C to 125 °C
- Crystallization Temperature: 480 °C

**ELECTRICAL PROPERTIES**

- Resistivity: 125 µ ohm-cm

*Measured on a toroid