

CMI-C

Cold Drawn Rod and Wire for Electromagnetic Applications

CMI Specialty Products, Inc.

PRODUCT DESCRIPTION

CMI-C Electromagnetic Iron Rod is specially processed with a critical strain for **optimum uniformity**. Maximum **magnetic properties** are achieved following suggested final anneal applied to fabricated parts.

CHEMICAL COMPOSITION

	C	Mn	P	S	Si	Al	N
Typical	.010	.18	.005	.005	.005	.010	.004
Maximum	.020	.25	.010	.010	.010	.050	.008

• BENEFITS

Hi-permeability, low coercivity. Low loss provides highest force/watt input.

• EASY ANNEAL

Response of magnetic properties to short anneals of 750°C - 850°C offers customer savings in heat-treating costs, as compared to expensive, high-temp decarb anneals.

• AVAILABILITY

CMI-C Rod is available out-of-stock in most common fraction diameters to 2-3/4 on a 1-2 week delivery. Larger sizes are also available. CMI-C Grade (0.02%C) is available in:

- Hot Rolled Bar Rounds
- Wire (cold heading quality)
- Square-edged Flats
- Round-cornered Squares (forging quality)

• MAGNETICS

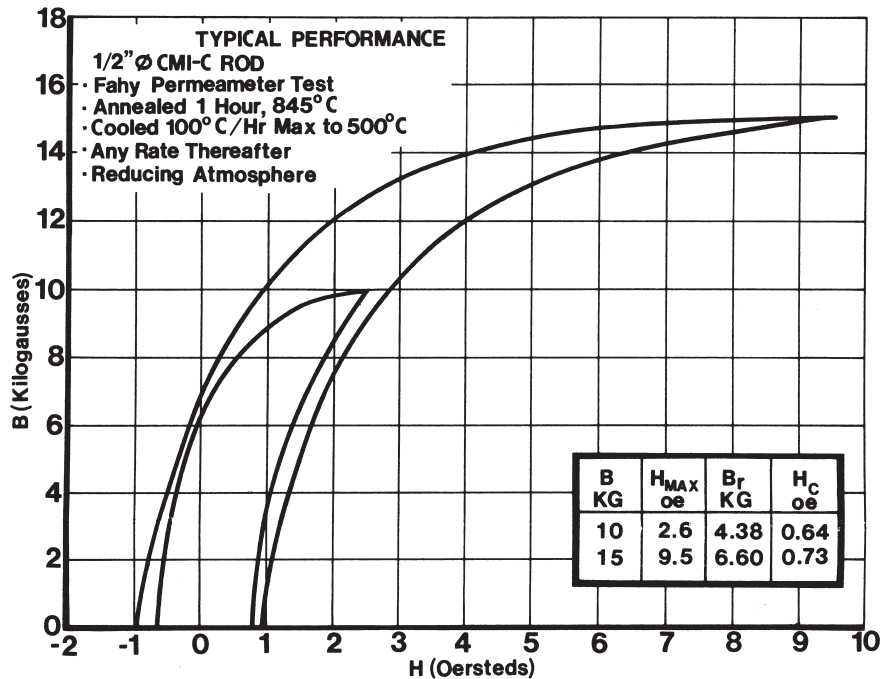
All material is specially processed for electromagnetic applications with certified magnetics. CMI products will meet the magnetic requirements of most DOD, Military and Commercial specifications.

TYPICAL MECHANICAL PROPERTIES

Rockwell Hardness	65 - 85 RB
Ultimate Tensile Strength	67 KSI
Yield Strength, 0.2% offset	65 KSI
Reduction in Area	78%

CMI-C Data Sheet

• MAGNETICS



** CMI-C conforms to magnetic specifications of: ASTM-A-848
 AMS 7706
 Mil-I-11695
 Dwg 71 AF 45549
 NARM-122

• APPLICATIONS

COLD DRAWN ROUNDS	Solenoid and relay cores, plungers, magnetic control devices.
HOT-ROLLED BAR	Generator and motor field frames and pole pieces. Magnetic chucks. Loud speaker parts, clutch plated.
FORGINGS	From hot to cold drawn rounds for magnetic recording/playback heads and flux collectors, acoustic devices and similar uses requiring highest possible flux density with minimum ampere-turns and low coercive force.