Specialty Magnetic Materials

Ultra-Low Carbon Iron for Electromagnetic Application & Permanent Magnets

Ultra Low Carbon Iron (CMI-B and CMI-C)

Chunma supplies high purity iron (99.8%) with extremely low carbon content (0.0218%), which leads to outstanding magnetic properties for high-performance applications.

Chunma's **CMI-B** series include ultra-low carbon magnetic iron strip & sheet, precision cold rolled foil, and hot-rolled pickled and oiled sheet. Special processing provides optimum magnetic properties after part formation and stress-relief annealing.

The high costs and quality variations associated with decarburizing anneals can often be avoided with use of this material.

CMI-B cold rolled strip is available in a wide range of dimensions and qualities. Various thicknesses are maintained in stock for quick delivery.

Chunma's **CMI-C** series include magnetic core iron cold drawn rod and bar, open die forging for magnetic applications, and hot rolled bars. The benefits are hi-permeability and low coercivity. Low loss provides highest force/watt input.

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. Sizes and specifications are available upon inquiry.

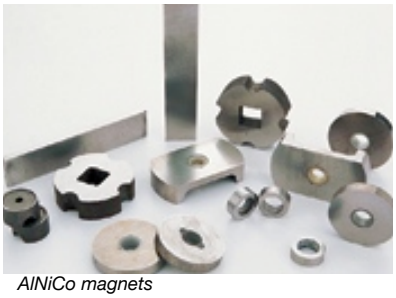
Chemical Composition of CMI-B and CMI-C

CMI-B	C	Mn	P	S	Si	Al	N
Typical (%)	0.005	0.25	0.012	0.008	0.005	0.030	0.004
Maximum (%)	0.008	0.035	0.020	0.020	0.020	0.080	0.010

CMI-C	C	Mn	P	S	Si	Al	N
Typical (%)	0.005	0.25	0.012	0.008	0.005	0.030	0.004

Specialty Magnetic Materials

Chunma supplies wide variety of permanent magnets including ferrite magnets, rare earth magnets (SmCo, Nd-Fe-B), bonded magnets, and metal magnets (AlNiCo) for applications requiring high-performance.



AlNiCo magnets

Sintered NdFeB

SmCo Magnets

HIgh-Performance Permanent Magnets

Chunma supplies high-performance permanent magnets based on rare earth magnets and other permanent magnets for various applications. Sizes and specifications are available upon inquiry.

Magnetic Characteristics and physical properties of sintered Nd-Fe-B

Grade	Br mT (kGs)	Hcb kA/m (kOe)	Hcj kA/m (kOe)	(BH) max kJ/m³ (MGOe)	(Tw)
N33H	1130-1170 (11.3-11.7)	> 836 (>10.5)	> 1353 (> 17)	247-271 (31-34)	120 °C
N35H	1170-1220 (11.7-12.2)	> 868 (>10.9)	> 1353 (> 17)	263-287 (33-36)	120 °C
N38H	1220-1250 (12.2-12.5)	> 899 (>11.35)	> 1353 (> 17)	287-310 (36-39)	120 °C
N40H	1250-1280 (12.5-12.8)	> 923 (>11.6)	> 1353 (> 17)	302-326 (38-41)	120 °C
N42H	1280-1320 (12.8-13.2)	> 955 (>12.0)	> 1353 (> 17)	318-342 (40-43)	120 °C
N45H	1300-1360 (13-13.6)	> 963 (>12.1)	> 1353 (> 17)	326-358 (43-46)	120 °C
N48H	1370-1430 (13.7-14.3)	> 995 (>12.5)	> 1353 (> 17)	366-390 (46-49)	120 °C

Chunma's manufacturing facility in Yongin, Korea

Chunma Corporation is capable of designing, manufacturing, and servicing high-quality magnetic separator equipment for various applications including mining and silica refining operations and purification processes.

Please contact us for inquiry regarding available models and custom production for your application.

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