

Sintered Neodymium magnet

NYOMAG is the new line of sintered magnets in neodymium, iron and boron. Its sintering process permit to achieve more powerful features and to meet customer needs.

After sintering process, the magnets are machined to obtain desired variety of shapes without extra-tool!

NYOMAG is the new powerful sintered magnet with high performances, very low tolerances and customized solutions.

Features:

- Magnet powder of neodymium, iron and boron
- Allow variety of customized shapes without tool
- Types of magnetization: axial, radial, diametrical
- Max. energy product up to 48 MGOe
- Residual induction up to 14,6 KGs
- Precise tolerance ± 0.05 mm
- Adapt for applications at high temperature up to 200°C in motors and generators
- Make possible replacements of the more expensive SmCo materials in many applications
- Adapt for light-weight and advanced applications
- Availability of various coatings such as Ni, Zn, Ni-Cu-Ni, Chemical Ni, Epoxy, depending on different applications

Applications:

Automotive

- Motors
- DC motors
- Brushless motors
- Pancake motors
- Sensors
- Engine Cooling Fan
- Electric Fuel Pumps
- Electric Power Steering
- Actuators
- Permanent Magnet Starter

Home appliances

- Refrigerator Motors
- HVAC Blower Motors
- Cordless Power Tool Motors
- Cordless Household Appliances
- Household Appliance Motors

Industrial automations

- Robot Arms
- Robot Motors
- Magnetic Coupling
- Bearings
- Generators
- Servo Motors

Other Applications

- Drives
- Speakers & Headsets
- Electro-acoustic (woofer & tweeter)
- Instrumentation Gauges
- Medical technology
- Motion control technology

Magneti in Neodimio Ferro Boro

NYOMAG è la nuova linea di magneti sinterizzati in neodimio, ferro e boro. Il suo processo di sinterizzazione permette di raggiungere più potenti caratteristiche e di incontrare le esigenze del cliente.

Successivamente al processo di sinterizzazione, i magneti sono lavorati per ottenere varietà di forme senza richiedere stampi ulteriori!

NYOMAG è il nuovo magnete sinterizzato ad alte performances, con basse tolleranze e soluzioni personalizzate.

Caratteristiche:

- Magnete in polveri di neodimio, ferro e boro
- Permette varietà di forme senza stampi
- Tipi di magnetizzazione: assiale, radiale e diametrale
- Massima energia prodotta fino a 48 MGOe
- Induzione residua fino a 1.46 KGs
- Precisa tolleranza ± 0.05 mm
- Adatto per applicazioni ad alte temperature fino a 200°C in motori e generatori
- Rende possibile la sostituzione del più costoso magnete SmCo in molte applicazioni
- Adatto per applicazioni avanzate e alleggerimento struttura
- Disponibilità di varie coperture come Ni, Zn, NiCuNi, Epoxy in base alle diverse applicazioni.

Applicazioni:

Automotive

- Motori DC
- Motori brushless
- Motori pancake
- Sensori
- Elettroventole raffreddamento motore
- Pompe elettriche per carburante
- Sterzi elettrici
- Attuatori
- Motorini di avviamento

Elettrodomestici

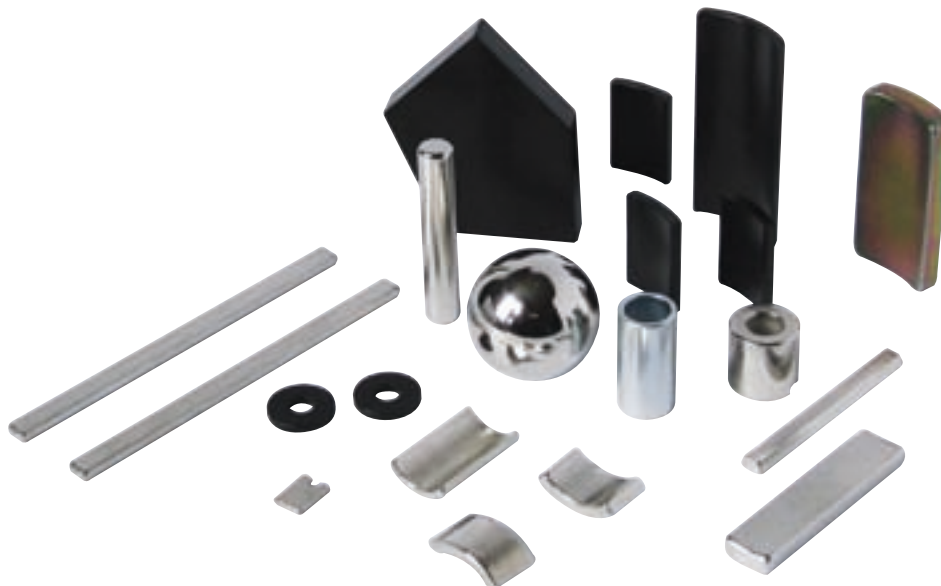
- Motori per frigoriferi
- Motori per raffreddamento (HVAC)
- Elettrodomestici a batteria
- Elettrodomestici a batteria
- Motori per piccoli elettrodomestici

Automazione Industriale

- Bracci robot
- Motori robot
- Accoppiamento magnetico
- Cuscinetti
- Generatori
- Servo Motori

Altre applicazioni

- Azionamenti
- Hedset & Speakers
- Electroacustica (woofer & tweeter)
- Strumenti di calibratura
- Apparecchiature medicali
- Tecnologie controllo movimento



Magnetic features

Caratteristiche magnetiche

	Residual induction (Br)	Coercive force (Hcb)	Intrinsic coercive force (Hcj)	Maximum energy product (BH) max	Max. work temp.	Temp. coefficient of Br from 20 up to 100°C	Temp. coefficient of Hcj from 20 up to 100°C	Density	Vickers hardness	Electric resistance rate	Hot coefficient of expans.
Code	T (KGs)	KA/m (KOE)	KA/m (KOE)	KJ/m ³ (MGOE)	°C	% / °C	% / °C	G/cm ³	Hv	μOcm	μOcm
NM-30	1.09 - 1.17 (10.9 - 11.7)	≥ 796 (≥ 10.0)	≥ 955 (≥ 12)	223 - 255 (28 - 32)	≤ 80	- 0.11	- 0.60	7.5	570	150	3.4 - 4.8
NM-33	1.14 - 1.22 (11.4 - 12.2)	≥ 836 (≥ 10.5)	≥ 955 (≥ 12)	247 - 279 (31 - 35)	≤ 80	- 0.11	- 0.60	7.5	570	150	3.4 - 4.8
NM-35	1.18 - 1.25 (11.8 - 12.5)	≥ 859 (≥ 10.8)	≥ 955 (≥ 12)	263 - 294 (33 - 37)	≤ 80	- 0.11	- 0.60	7.5	570	150	3.4 - 4.8
NM-38	1.23 - 1.30 (12.3 - 13.0)	≥ 859 (≥ 10.8)	≥ 955 (≥ 12)	286 - 318 (36 - 40)	≤ 80	- 0.11	- 0.60	7.5	570	150	3.4 - 4.8
NM-40	1.26 - 1.32 (12.6 - 13.2)	≥ 836 (≥ 10.8)	≥ 955 (≥ 12)	302 - 334 (38 - 42)	≤ 80	- 0.11	- 0.60	7.5	570	150	3.4 - 4.8
NM-42	1.30 - 1.35 (13.0 - 13.5)	≥ 836 (≥ 10.8)	≥ 955 (≥ 12)	318 - 350 (40 - 44)	≤ 80	- 0.11	- 0.60	7.5	570	150	3.4 - 4.8
NM-45	1.32 - 1.38 (13.2 - 13.8)	≥ 836 (≥ 10.5)	≥ 875 (≥ 11)	334 - 366 (42 - 46)	≤ 80	- 0.11	- 0.60	7.5	570	150	3.4 - 4.8
NM-48	1.35 - 1.43 (13.5 - 14.3)	≥ 836 (≥ 10.5)	≥ 875 (≥ 11)	358 - 390 (45 - 49)	≤ 80	- 0.11	- 0.60	7.5	570	150	3.4 - 4.8
NM-50	1.40 - 1.46 (14.0 - 14.6)	≥ 836 (≥ 10.5)	≥ 875 (≥ 11)	374 - 406 (47 - 51)	≤ 80	- 0.11	- 0.60	7.5	570	150	3.4 - 4.8
NM-52	1.43 - 1.48 (14.3 - 14.8)	≥ 860 (≥ 10.8)	≥ 876 (≥ 11)	398 - 422 (50 - 53)	≤ 80	- 0.11	- 0.60	7.5	570	150	3.4 - 4.8
NM-30M	1.09 - 1.17 (10.9 - 11.7)	≥ 812 (≥ 10.2)	≥ 1114 (≥ 14)	223 - 255 (28 - 32)	≤ 100	- 0.11	- 0.60	7.5	570	150	3.4 - 4.8
NM-33M	1.14 - 1.22 (11.4 - 12.2)	≥ 851 (≥ 10.7)	≥ 1114 (≥ 14)	247 - 279 (31 - 35)	≤ 100	- 0.11	- 0.60	7.5	570	150	3.4 - 4.8
NM-35M	1.18 - 1.25 (11.8 - 12.5)	≥ 875 (≥ 11.0)	≥ 1114 (≥ 14)	263 - 294 (33 - 37)	≤ 100	- 0.11	- 0.60	7.5	570	150	3.4 - 4.8
NM-38M	1.23 - 1.30 (12.3 - 13.0)	≥ 907 (≥ 11.4)	≥ 1114 (≥ 14)	286 - 318 (36 - 40)	≤ 100	- 0.11	- 0.60	7.5	570	150	3.4 - 4.8
NM-40M	1.26 - 1.32 (12.6 - 13.2)	≥ 936 (≥ 11.8)	≥ 1114 (≥ 14)	302 - 334 (38 - 42)	≤ 100	- 0.11	- 0.60	7.5	570	150	3.4 - 4.8
NM-42M	1.30 - 1.35 (13.0 - 13.5)	≥ 955 (≥ 12.0)	≥ 1114 (≥ 14)	318 - 350 (40 - 44)	≤ 100	- 0.11	- 0.60	7.5	570	150	3.4 - 4.8
NM-45M	1.32 - 1.38 (13.2 - 13.8)	≥ 971 (≥ 12.2)	≥ 1114 (≥ 14)	334 - 366 (42 - 46)	≤ 100	- 0.11	- 0.60	7.5	570	150	3.4 - 4.8
NM-48M	1.35 - 1.43 (13.5 - 14.3)	≥ 971 (≥ 12.2)	≥ 1114 (≥ 14)	358 - 390 (45 - 49)	≤ 100	- 0.11	- 0.60	7.5	570	150	3.4 - 4.8
NM-50M	1.40 - 1.45 (14.0 - 14.5)	≥ 1033 (≥ 13.0)	≥ 1114 (≥ 14)	382 - 406 (48 - 51)	≤ 100	- 0.11	- 0.60	7.5	570	150	3.4 - 4.8
NM-27H	1.02 - 1.11 (10.2 - 11.1)	≥ 780 (≥ 9.80)	≥ 1353 (≥ 17)	199 - 231 (25 - 29)	≤ 120	- 0.11	- 0.60	7.5	570	150	3.4 - 4.8
NM-30H	1.09 - 1.17 (10.9 - 11.7)	≥ 812 (≥ 10.2)	≥ 1353 (≥ 17)	223 - 255 (28 - 32)	≤ 120	- 0.11	- 0.60	7.5	570	150	3.4 - 4.8
NM-33H	1.14 - 1.22 (11.4 - 12.2)	≥ 851 (≥ 10.7)	≥ 1353 (≥ 17)	247 - 279 (31 - 35)	≤ 120	- 0.11	- 0.60	7.5	570	150	3.4 - 4.8
NM-35H	1.18 - 1.25 (11.8 - 12.5)	≥ 875 (≥ 11.0)	≥ 1353 (≥ 17)	263 - 294 (33 - 37)	≤ 120	- 0.11	- 0.60	7.5	570	150	3.4 - 4.8
NM-38H	1.23 - 1.30 (12.3 - 13.0)	≥ 907 (≥ 11.4)	≥ 1353 (≥ 17)	286 - 318 (36 - 40)	≤ 120	- 0.11	- 0.60	7.5	570	150	3.04 - 4.8
NM-40H	1.26 - 1.32 (12.6 - 13.2)	≥ 936 (≥ 11.8)	≥ 1273 (≥ 16)	302 - 334 (38 - 42)	≤ 120	- 0.11	- 0.60	7.5	570	150	3.04 - 4.8



Magnetic features

Caratteristiche magnetiche

	Residual induction (Br)	Coercive force (Hcb)	Intrinsic coercive force (Hcj)	Maximum energy product (BH) max	Max. work temp.	Temp. coefficient of Br from 20 up to 100°C	Temp. coefficient of Hcj from 20 up to 100°C	Density	Vickers hardness	Electric resistance rate	Hot coefficient of expans.
Code	T (KGs)	KA/m (KOe)	KA/m (KOe)	KJ/m ³ (MGOe)	°C	% / °C	% / °C	G/cm ³	Hv	μOcm	μOcm
NM-42H	1.30 - 1.35 (13.0 - 13.5)	≥ 939 (≥ 11.8)	≥ 1273 (≥ 16)	318 - 350 (40 - 44)	≤ 120	- 0.11	- 0.60	7.5	570	150	3.04 - 4.8
NM-44H	1.30 - 1.37 (13.0 - 13.7)	≥ 939 (≥ 11.8)	≥ 1273 (≥ 16)	326 - 358 (41 - 45)	≤ 120	- 0.11	- 0.60	7.5	570	150	3.04 - 4.8
NM-48H	1.36 - 1.43 (13.6 - 14.3)	≥ 995 (≥ 12.5)	≥ 1274 (≥ 16)	366 - 390 (46 - 49)	≤ 120	- 0.11	- 0.60	7.5	570	150	3.04 - 4.8
NM-30SH	1.09 - 1.17 (10.9 - 11.7)	≥ 812 (≥ 10.2)	≥ 1592 (≥ 20)	223 - 255 (28 - 32)	≤ 150	- 0.11	- 0.60	7.5	570	150	3.04 - 4.8
NM-33SH	1.14 - 1.22 (11.4 - 12.2)	≥ 851 (≥ 10.7)	≥ 1592 (≥ 20)	247 - 279 (31 - 35)	≤ 150	- 0.11	- 0.60	7.5	570	150	3.04 - 4.8
NM-35SH	1.18 - 1.25 (11.8 - 12.5)	≥ 875 (≥ 11.0)	≥ 1592 (≥ 20)	263 - 294 (33 - 37)	≤ 150	- 0.11	- 0.60	7.5	570	150	3.04 - 4.8
NM-38SH	1.23 - 1.30 (12.3 - 13.0)	≥ 923 (≥ 11.6)	≥ 1592 (≥ 20)	286 - 318 (36 - 40)	≤ 150	- 0.11	- 0.60	7.5	570	150	3.04 - 4.8
NM-40SH	1.26 - 1.32 (12.6 - 13.2)	≥ 939 (≥ 11.8)	≥ 1592 (≥ 20)	302 - 334 (38 - 42)	≤ 150	- 0.11	- 0.60	7.5	570	150	3.04 - 4.8
NM-42SH	1.28 - 1.34 (12.8 - 13.4)	≥ 939 (≥ 11.8)	≥ 1592 (≥ 19)	310 - 342 (39 - 43)	≤ 150	- 0.11	- 0.60	7.5	570	150	3.04 - 4.8
NM-45SH	1.32 - 1.38 (13.2 - 13.8)	≥ 1003 (≥ 12.6)	≥ 1592 (≥ 20)	342 - 366 (43 - 46)	≤ 150	- 0.11	- 0.60	7.5	570	150	3.04 - 4.8
NM-25UH	0.98 - 1.07 (9.8 - 10.7)	≥ 732 (≥ 9.20)	≥ 1989 (≥ 25)	183 - 215 (23 - 27)	≤ 180	- 0.11	- 0.60	7.5	570	150	3.04 - 4.8
NM-28UH	1.05 - 1.13 (10.5 - 11.3)	≥ 780 (≥ 9.80)	≥ 1989 (≥ 25)	207 - 239 (26 - 30)	≤ 180	- 0.11	- 0.60	7.5	570	150	3.04 - 4.8
NM-30UH	1.09 - 1.17 (10.9 - 11.7)	≥ 812 (≥ 10.2)	≥ 1989 (≥ 25)	223 - 255 (28 - 32)	≤ 180	- 0.11	- 0.60	7.5	570	150	3.04 - 4.8
NM-33UH	1.14 - 1.22 (11.4 - 12.2)	≥ 851 (≥ 10.7)	≥ 1989 (≥ 25)	247 - 279 (31 - 35)	≤ 180	- 0.11	- 0.60	7.5	570	150	3.04 - 4.8
NM-35UH	1.18 - 1.25 (11.8 - 12.5)	≥ 875 (≥ 11.0)	≥ 1989 (≥ 25)	263 - 294 (33 - 37)	≤ 180	- 0.11	- 0.60	7.5	570	150	3.04 - 4.8
NM-38UH	1.21 - 1.25 (12.1 - 12.5)	≥ 907 (≥ 11.4)	≥ 1990 (≥ 25)	287 - 310 (36 - 39)	≤ 180	- 0.11	- 0.60	7.5	570	150	3.04 - 4.8
NM-40UH	1.25 - 1.28 (12.5 - 12.8)	≥ 907 (≥ 11.4)	≥ 1990 (≥ 25)	302 - 326 (38 - 41)	≤ 180	- 0.11	- 0.60	7.5	570	150	3.04 - 4.8
NM-25EH	0.98 - 1.07 (9.8 - 10.7)	≥ 732 (≥ 9.20)	≥ 2387 (≥ 30)	183 - 215 (23 - 27)	≤ 200	- 0.11	- 0.60	7.5	570	150	3.04 - 4.8
NM-28EH	1.05 - 1.08 (10.5 - 10.8)	≥ 756 (≥ 9.5)	≥ 2388 (≥ 30)	207 - 231 (26 - 29)	≤ 200	- 0.11	- 0.60	7.5	570	150	3.04 - 4.8
NM-30EH	1.08 - 1.14 (10.8 - 11.4)	≥ 756 (≥ 9.5)	≥ 2388 (≥ 30)	223 - 241 (28 - 31)	≤ 200	- 0.11	- 0.60	7.5	570	150	3.04 - 4.8
NM-33EH	1.13 - 1.17 (11.3 - 11.7)	≥ 812 (≥ 10.2)	≥ 2388 (≥ 30)	247 - 263 (31 - 33)	≤ 200	- 0.11	- 0.60	7.5	570	150	3.04 - 4.8
NM-35EH	1.17 - 1.21 (11.7 - 12.1)	≥ 812 (≥ 10.2)	≥ 2388 (≥ 30)	263 - 287 (33 - 36)	≤ 200	- 0.11	- 0.60	7.5	570	150	3.04 - 4.8
NM-38EH	1.21 - 1.25 (12.1 - 12.5)	≥ 907 (≥ 11.4)	≥ 2388 (≥ 30)	287 - 310 (36 - 39)	≤ 200	- 0.11	- 0.60	7.5	570	150	3.04 - 4.8
NM-30AH	1.08 - 1.13 (10.8 - 11.3)	≥ 812 (≥ 10.2)	≥ 2785 (≥ 35)	223 - 255 (28 - 32)	≤ 220	- 0.11	- 0.60	7.5	570	150	3.04 - 4.8
NM-33AH	1.12 - 1.17 (11.2 - 11.7)	≥ 812 (≥ 10.2)	≥ 2785 (≥ 35)	247 - 271 (31 - 34)	≤ 220	- 0.11	- 0.60	7.5	570	150	3.04 - 4.8



Magnetic features

Caratteristiche magnetiche

Coating features

Caratteristiche rivestimento



Coating

Performances	Code / 00 Color - Zn	Code / 01 Ni - Cu - Ni	Code / 02 Zn - Ni	Code / 03 NiCuNi + Epoxy	Code / 04 NiCuNi + SN
Coating Thickness (μm)	10 - 15	15 - 30	10 - 20	10 - 50	15 - 30
Sst: 35°C 5% NaCl Corrosion resistance in salt Fog (Hours)	> 24	> 48	> 48	> 72	> 72
Coating Porosity	< 0.1	< 0.1	< 0.1	-	-
Magnetic flux Lose	< 0.1	< 0.1	< 0.1	-	-
Color	color	silver	color	black / grey	silver
PTC: 120°C Humidity 100% 2 ATM (Hours)	> 24	> 48	> 24	> 48	100
Environment test report 85°C Humidity 100% (Hours)	-	100	> 24	48	100





Curves

Curve

