CERMAG LTD
92/94 Holywell Road Sheffield S4 8AS
T: 0114 244 6136 / 0114 244 8860
F: 0114 256 1769
E: sales@cermag.co.uk
www.cermag.co.uk

MATERIAL DATA SHEET

Revision Date – 10.09.2021
Revision Number – 5
Material/Trade Name – NdFeB

1 - Substance Identification

Material/Trade Name -	NdFeB
Material Type -	Neodymium Iron Boron
Company -	Cermag Ltd
Address -	92/94 Holywell Road Sheffield S48AS
Telephone -	0114 2446136
Fax -	0114 2561769

2 – Substance

NdFeB

3 – REACH

Neodymium materials contain no SVHC (Substances of Very High Concern) either in ingredients or in preparation

4 – Hazard Identification

THIS MATERIAL POSES A FIRE RISK WHEN FINE DUST IS PRODUCED AS A RESULT OF MACHINING.

Very fine powder, 200 mesh is rated as a weak explosive hazard when suspended in air.

Flash Point - 515°C

5 – First Aid Measures

Inhalation - Remove to fresh air area
Inform first aider

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Eyes -	Flush dust from eyes with water Inform first aider
Skin -	Wash with soap & water Inform first aider
Ingestion -	Give plenty of water to drink Do not induce vomiting Inform first aider

6 – Fire Prevention

Use a smothering agent such as sand or graphite powder

7 – Handling & Storage of Magnetised Products

Due care should be taken when handling fully magnetised material as physical injury may occur through entrapment of body parts caused by the inadvertent attraction of magnetised material to other similar or ferro-magnetic material.

Close proximity to the magnetic field from magnetised material may effect the operation of heart pacemakers and other electronic equipment including Computers & Mobile Phones. Credit Cards can also be affected.

8a – Properties (Magnetic)

	Br (Gauss)	bHc (Oersted)	iHc (Oersted)	BH Max (MGO)	Magnetising Force (Oersted)
N30	11,600	10,000	11,000	30	30,000
N30H	11,600	10,000	11,000	30	30,000
N30SH	11,600	10,000	11,000	30	30,000
N35	12,000	10,900	12,000	35	30,000
N35H	12,000	10,900	12,000	35	30,000
N35SH	12,000	10,900	12,000	35	30,000
N38	12,300	11,300	12,000	38	30,000
N38H	12,300	11,300	12,000	38	30,000
N38SH	12,300	11,300	12,000	38	30,000
N40	12,750	11,400	12,000	40	30,000
N40H	12,750	11,400	12,000	40	30,000
N40SH	12,750	11,400	12,000	40	30,000
N42	13,100	10,900	12,000	42	30,000
N45	13,200	11,300	12,000	45	30,000
N48	13,800	10,500	11,000	48	30,000

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8b – Properties (Thermal)

	Reversible Temperature Coefficient of Br (%change/°C)	Curie Temperature (°C)	Maximum Working Temp (°C)
N30	-0.09	310	80
N30H	-0.09	310	120
N30SH	-0.09	310	150
N35	-0.09	310	80
N35H	-0.09	310	120
N35SH	-0.09	310	150
N38	-0.09	310	80
N38H	-0.09	310	120
N38SH	-0.09	310	150
N40	-0.09	310	80
N40H	-0.09	310	120
N40SH	-0.09	310	150
N42	-0.09	310	80
N45	-0.09	310	80
N48	-0.09	310	80

8c – Properties (Physical)

	Density (g/cm^3)	Tensile Strength (PSI)	Modulus of elasticity (PSI)	Hardness (Rockwell)	Coefficient of thermal expansion (10^{-6}per °C) Perpendicular to orientation	Coefficient of thermal expansion (10^{-6}per °C) Parallel to orientation	Electrical Resistivity at 20°C (Ohm-cm x 10^{-6})
N30	7.4	12000	22×10^6	55	4.8	3.4	160
N30H	7.4	12000	22×10^6	55	4.8	3.4	160
N30SH	7.4	12000	22×10^6	55	4.8	3.4	160
N35	7.4	12000	22×10^6	55	4.8	3.4	160
N35H	7.4	12000	22×10^6	55	4.8	3.4	160
N35SH	7.4	12000	22×10^6	55	4.8	3.4	160
N38	7.4	12000	22×10^6	55	4.8	3.4	160
N38H	7.4	12000	22×10^6	55	4.8	3.4	160
N38SH	7.4	12000	22×10^6	55	4.8	3.4	160
N40	7.4	12000	22×10^6	55	4.8	3.4	160
N40H	7.4	12000	22×10^6	55	4.8	3.4	160
N40SH	7.4	12000	22×10^6	55	4.8	3.4	160

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N42	7.4	12000	22×10^6	55	4.8	3.4	160
N45	7.4	12000	22×10^6	55	4.8	3.4	160
N48	7.4	12000	22×10^6	55	4.8	3.4	160

9 – Stability and Reactivity

Stable at normal temperatures
Avoid moist atmospheres

10 – Disposal Considerations

Do not dispose into watercourses
Use only licensed contractors
Dispose in accordance with Special Waste Regulations 1996

11 – Transport Information

Not Classified as Hazardous for Transportation by Air or Sea. Magnetic fields within 0.00525gauss at 15 feet, as legislation states.
Data sheet needed to accompany our commercial invoice with freight.

12 – Regulatory Information

1 – Risk & Safety -	Avoid Entrapment of Body Parts Dispose of material in a safe way
2 – Other Regulations -	Health & Safety at Work Act 1974 Environmental protection Act 1990 Special Waste Regulations 1996