

# Sintered NdFeB

## Neodymium Iron Boron

This family of rare earth transition metal alloys has the highest energy products of all permanent magnet materials and coercivities ranging from 12 kOe to as high as 35 kOe. Many devices that once used Alnico or ceramic magnets have replaced them with NdFeB magnets due to their high energies and high coercivities.



## Magnetic Properties of NeFeB Magnets

Grade	Remanence		Coercivity				Max Energy Product		Temperature Coefficient		Max Working Temperature
	$B_r$		$H_{cB}$		$H_{cJ}$		$(BH)_{max}$		$\alpha(B_r)$	$\beta(H_{cJ})$	$T_wMax$
	T	kGs	kA/m	kOe	kA/m	kOe	kJ/m <sup>3</sup>	MGOe	%/°C	%/°C	° C
N35	1.17-1.22	11.7-12.2	≥860	≥10.8	≥955	≥12	263-287	33-36	-0.12	-0.750	80
N38	1.22-1.25	12.2-12.5	≥860	≥11.2	≥955	≥12	287-310	36-39	-0.12	-0.750	80
N40	1.25-1.28	12.5-12.8	≥860	≥11.5	≥955	≥12	302-326	38-41	-0.12	-0.750	80
N42	1.28-1.32	12.8-13.2	≥860	≥11.5	≥955	≥12	318-342	40-43	-0.12	-0.750	80
N45	1.32-1.37	13.2-13.7	≥860	≥11.0	≥955	≥12	342-366	43-46	-0.12	-0.750	80
N48	1.37-1.42	13.7-14.2	≥836	≥11.0	≥955	≥12	366-390	46-49	-0.12	-0.750	80
N50	1.39-1.44	13.9-14.4	≥836	≥10.5	≥955	≥12	376-408	47-51	-0.12	-0.750	80
N52	1.42-1.47	14.2-14.7	≥836	≥10.5	≥876	≥11	390-421	49-53	-0.12	-0.750	60
N55	1.46-1.52	14.6-15.2	≥716	≥9.0	≥876	≥11	413-438	52-55	-0.12	-0.60	60
N35M	1.17-1.22	11.7-12.2	≥868	≥10.9	≥1114	≥14	263-287	33-36	-0.11	-0.675	100
N38M	1.22-1.25	12.2-12.5	≥899	≥11.3	≥1114	≥14	287-310	36-39	-0.11	-0.675	100
N40M	1.25-1.28	12.5-12.8	≥923	≥11.6	≥1114	≥14	302-326	38-41	-0.11	-0.675	100
N42M	1.28-1.32	12.8-13.2	≥955	≥12.0	≥1114	≥14	318-342	40-43	-0.11	-0.675	100
N45M	1.32-1.38	13.2-13.8	≥971	≥12.2	≥1114	≥14	342-366	43-46	-0.11	-0.675	100
N48M	1.36-1.42	13.6-14.2	≥995	≥12.5	≥1114	≥14	360-392	46-49	-0.11	-0.675	100
N50M	1.39-1.44	13.9-14.4	≥1035	≥13.0	≥1114	≥14	376-406	47-51	-0.11	-0.675	100
N52M	1.42-1.47	14.2-14.7	≥1056	≥13.3	≥1114	≥14	390-422	49-53	-0.11	-0.675	100
N35H	1.17-1.22	11.7-12.2	≥868	≥10.9	≥1353	≥17	263-287	33-36	-0.11	-0.605	120
N38H	1.22-1.25	12.2-12.5	≥899	≥11.3	≥1353	≥17	287-310	36-39	-0.11	-0.605	120
N40H	1.25-1.28	12.5-12.8	≥923	≥11.6	≥1353	≥17	302-326	38-41	-0.11	-0.605	120
N42H	1.28-1.32	12.8-13.2	≥955	≥12.0	≥1353	≥17	318-342	40-43	-0.11	-0.605	120
N45H	1.32-1.37	13.2-13.7	≥971	≥12.2	≥1353	≥17	344-366	43-46	-0.11	-0.605	120
N48H	1.36-1.42	13.6-14.2	≥1011	≥12.7	≥1353	≥17	366-392	46-49	-0.11	-0.605	120
N50H	1.39-1.44	13.9-14.4	≥1035	≥13.0	≥1353	≥17	374-406	47-51	-0.11	-0.605	120
N52H	1.42-1.47	14.2-14.7	≥1035	≥13.0	≥1353	≥17	390-422	49-53	-0.11	-0.605	120
N33SH	1.13-1.17	11.3-11.7	≥844	≥10.6	≥1592	≥20	247-272	31-34	-0.11	-0.535	150
N35SH	1.17-1.22	11.7-12.2	≥876	≥11.0	≥1592	≥20	263-287	33-36	-0.11	-0.535	150
N38SH	1.22-1.25	12.2-12.5	≥907	≥11.4	≥1592	≥20	287-310	36-39	-0.11	-0.535	150
N40SH	1.25-1.28	12.5-12.8	≥939	≥11.8	≥1592	≥20	302-326	38-41	-0.11	-0.535	150
N42SH	1.28-1.32	12.8-13.2	≥955	≥12.0	≥1592	≥20	318-342	40-43	-0.11	-0.535	150
N45SH	1.32-1.37	13.2-13.7	≥979	≥12.3	≥1592	≥20	342-366	43-46	-0.11	-0.535	150
N48SH	1.36-1.42	13.6-14.2	≥995	≥12.5	≥1592	≥20	366-390	45-49	-0.11	-0.535	150
N50SH	1.39-1.45	13.9-14.5	≥995	≥12.5	≥1592	≥20	374-406	45-49	-0.11	-0.535	150

## Magnetic Properties of NdFeB Magnets

Grade	Remanence		Coercivity				Max Energy Product		Temperature Coefficient		Max Working Temperature
	$B_r$		$H_{cB}$		$H_{cJ}$		$(BH)_{max}$		$\alpha(B_r)$	$\beta(H_{cJ})$	$T_wMax$
	T	kGs	kA/m	kOe	kA/m	kOe	kJ/m <sup>3</sup>	MGOe	%/°C	%/°C	°C
N30UH	1.08-1.13	10.8-11.3	≥812	≥10.2	≥1990	≥25	223-247	28-31	-0.10	-0.465	180
N33UH	1.13-1.17	11.3-11.7	≥852	≥10.7	≥1990	≥25	247-271	31-34	-0.10	-0.465	180
N35UH	1.17-1.22	11.7-12.2	≥860	≥10.8	≥1990	≥25	263-287	33-36	-0.10	-0.465	180
N38UH	1.22-1.25	12.2-12.5	≥876	≥11.0	≥1990	≥25	287-310	36-39	-0.10	-0.465	180
N40UH	1.25-1.28	12.5-12.8	≥915	≥11.5	≥1990	≥25	302-326	38-41	-0.10	-0.465	180
N42UH	1.27-1.32	12.7-13.2	≥955	≥12.0	≥1990	≥25	318-342	40-43	-0.10	-0.465	180
N45UH	1.32-1.37	13.2-13.7	≥995	≥12.5	≥1990	≥25	342-366	43-46	-0.10	-0.465	180
N48UH	1.37-1.43	13.7-14.3	≥995	≥12.5	≥1990	≥25	366-390	46-49	-0.10	-0.465	180
N50UH	1.39-1.45	13.9-14.5	≥995	≥12.5	≥1990	≥25	374-406	47-51	-0.10	-0.465	180
N30EH	1.08-1.13	10.8-11.3	≥812	≥10.2	≥2388	≥30	223-247	28-31	-0.10	-0.420	200
N33EH	1.13-1.17	11.3-11.7	≥820	≥10.3	≥2388	≥30	248-272	31-34	-0.10	-0.420	200
N35EH	1.17-1.22	11.7-12.2	≥836	≥10.5	≥2388	≥30	263-287	33-36	-0.10	-0.420	200
N38EH	1.20-1.25	12.0-12.5	≥899	≥11.3	≥2388	≥30	287-310	36-39	-0.10	-0.420	200
N40EH	1.25-1.28	12.5-12.8	≥915	≥11.5	≥2388	≥30	302-326	38-41	-0.10	-0.420	200
N28AH	1.05-1.09	10.5-10.9	≥780	≥9.8	≥2706	≥34	207-230	26-29	-0.10	-0.393	220
N30AH	1.10-1.14	11.0-11.4	≥812	≥10.2	≥2706	≥34	223-247	28-31	-0.10	-0.393	220
N33AH	1.14-1.17	11.4-11.7	≥812	≥10.2	≥2706	≥34	247-271	31-34	-0.10	-0.393	220
N35AH	1.17-1.22	11.7-12.2	≥883	≥11.1	≥2706	≥34	263-287	33-36	-0.10	-0.393	220
N38AH	1.20-1.25	12.0-12.5	≥923	≥11.6	≥2706	≥34	287-310	36-39	-0.10	-0.393	220

1. The above-mentioned data of magnetic parameters and physical properties are given at room temperature.
2. The above values also have relationship to products shapes and dimensions. It is recommended that the final test data to be fixed on actual products.
3. For other special magnetic parameters, please contact us, and we can make them to your specifications.

