



Magnetic properties of N-Type sintered Nd-Fe-B permanent magnets at room temperature (20 °C)

		Magnetic Properties								
No.	Material	B _r		H _{cJ,min}		H _{cB,min}		(BH) _{max}		T _{max} (°C)
	Grade	T	kG	kA/m	kOe	kA/m	kOe	kJ/m ³	MGOe	
1.	N28	1.04 - 1.09	10.4 - 10.9	955	12	788	9.9	207 - 231	25 - 29	80 °C
2.	N30	1.08 - 1.13	10.8 - 11.3	955	12	804	10.1	223 - 247	28 - 31	80 °C
3.	N33	1.13 - 1.18	11.3 - 11.8	955	12	843	10.6	247 - 271	31 - 34	80 °C
4.	N35	1.17 - 1.22	11.7 - 12.2	955	12	884	11.1	263 - 287	33 - 36	80 °C
5.	N38	1.22 - 1.27	12.2 - 12.7	955	12	915	11.5	287 - 310	36 - 39	80 °C
6.	N40	1.26 - 1.30	12.6 - 13.0	955	12	923	11.6	302 - 326	38 - 41	80 °C
7.	N42	1.29 - 1.33	12.9 - 13.3	955	12	923	11.6	318 - 342	40 - 43	80 °C
8.	N45	1.33 - 1.38	13.3 - 13.8	955	12	923	11.6	342 - 366	43 - 46	80 °C
9.	N48	1.38 - 1.42	13.8 - 14.2	955	12	923	11.6	366 - 390	46 - 49	80 °C
10.	N50	1.39 - 1.45	13.9 - 14.5	955	12	923	11.6	374 - 406	47 - 51	80 °C
11.	N52	1.43 - 1.48	14.2 - 14.8	955	12	875	11.0	390 - 422	49 - 53	80 °C
12.	N55	1.46 - 1.52	14.6 - 15.2	876	11	836	10.5	414 - 446	52 - 56	60 °C



Magnetic properties of M-Type sintered Nd-Fe-B permanent magnets at room temperature (20 °C)

		Magnetic Properties								
No.	Material	B _r		H _{cJ,min}		H _{cB,min}		(BH) _{max}		T _{max} (°C)
	Grade	T	kG	kA/m	kOe	kA/m	kOe	kJ/m ³	MGOe	
1.	30M	1.08 - 1.13	10.8 - 11.3	1114	14	812	10.2	223 - 247	28 - 31	100 °C
2.	33M	1.13 - 1.18	11.3 - 11.8	1114	14	852	10.7	247 - 271	31 - 34	100 °C
3.	35M	1.17 - 1.22	11.7 - 12.2	1114	14	883	11.1	263 - 287	33 - 36	100 °C
4.	38M	1.22 - 1.26	12.2 - 12.6	1114	14	915	11.5	287 - 310	36 - 39	100 °C
5.	40M	1.25 - 1.29	12.5 - 12.9	1114	14	939	11.8	302 - 326	38 - 41	100 °C
6.	42M	1.28 - 1.33	12.8 - 13.3	1114	14	963	12.1	318 - 342	40 - 43	100 °C
7.	45M	1.32 - 1.37	13.2 - 13.7	1114	14	995	12.5	342 - 366	43 - 46	100 °C
8.	48M	1.37 - 1.42	13.7 - 14.2	1114	14	1019	12.8	358 - 390	45 - 49	100 °C
9.	50M	1.39 - 1.45	13.9 - 14.5	1114	14	1035	13.0	374 - 406	47 - 51	100 °C
10.	52M	1.42 - 1.48	14.2 - 14.8	1114	14	1035	13.0	390 - 422	49 - 53	100 °C
11.	55M	1.45 - 1.52	14.5 - 15.2	1035	13	971	12.2	414 - 446	52 - 56	90 °C



Magnetic properties of H-Type sintered Nd-Fe-B permanent magnets at room temperature (20 °C)

		Magnetic Properties								
No.	Material Grade	B _r		H _{cJ,min}		H _{cB,min}		(BH) _{max}		T _{max} (°C)
		T	kG	kA/m	kOe	kA/m	kOe	kJ/m ³	MGOe	
1.	28H	1.04 - 1.09	10.4 - 10.9	1353	17	788	9.9	207 - 231	26 - 29	120 °C
2.	30H	1.08 - 1.13	10.8 - 11.3	1353	17	820	10.3	223 - 247	28 - 31	120 °C
3.	33H	1.13 - 1.18	11.3 - 11.8	1353	17	860	10.8	247 - 271	31 - 34	120 °C
4.	35H	1.17 - 1.22	11.7 - 12.2	1353	17	884	11.1	263 - 287	33 - 36	120 °C
5.	38H	1.22 - 1.26	12.2 - 12.6	1353	17	923	11.6	287 - 310	36 - 39	120 °C
6.	40H	1.25 - 1.30	12.5 - 13.0	1353	17	947	11.9	302 - 326	38 - 41	120 °C
7.	42H	1.28 - 1.33	12.8 - 13.3	1353	17	971	12.2	318 - 342	40 - 43	120 °C
8.	45H	1.32 - 1.37	13.2 - 13.7	1353	17	1003	12.6	342 - 366	43 - 46	120 °C
9.	46H	1.34 - 1.39	13.4 - 13.9	1353	17	1019	12.8	350 - 374	44 - 47	120 °C
10.	47H	1.36 - 1.41	13.6 - 14.1	1353	17	1027	12.9	358 - 382	45 - 48	120 °C
11.	48H	1.37 - 1.42	13.7 - 14.2	1353	17	1035	13.0	366 - 390	46 - 49	120 °C
12.	50H	1.39 - 1.44	13.9 - 14.4	1353	17	1035	13.0	374 - 406	47 - 51	120 °C
13.	52H	1.42 - 1.47	14.2 - 14.7	1274	16	1035	13.0	390 - 422	49 - 53	110 °C



Magnetic properties of SH-Type sintered Nd-Fe-B permanent magnets at room temperature (20 °C)

		Magnetic Properties								
No.	Material	B _r		H _{cJ,min}		H _{cB,min}		(BH) _{max}		T _{max} (°C)
	Grade	T	kG	kA/m	kOe	kA/m	kOe	kJ/m ³	MGOe	
1.	28SH	1.04 - 1.09	10.4 - 10.9	1592	20	788	9.9	207 - 231	26 - 29	150 °C
2.	30SH	1.08 - 1.13	10.8 - 11.3	1592	20	820	10.3	223 - 247	28 - 31	150 °C
3.	33SH	1.13 - 1.18	11.3 - 11.8	1592	20	860	10.8	247 - 271	31 - 34	150 °C
4.	35SH	1.17 - 1.22	11.7 - 12.2	1592	22	884	11.1	263 - 278	33 - 36	150 °C
5.	38SH	1.22 - 1.26	12.2 - 12.6	1592	20	923	11.6	287 - 310	36 - 39	150 °C
6.	40SH	1.25 - 1.29	12.5 - 12.9	1592	20	947	11.9	302 - 326	38 - 41	150 °C
7.	42SH	1.28 - 1.32	12.8 - 13.2	1592	20	971	12.2	318 - 342	40 - 43	150 °C
8.	44SH	1.31 - 1.35	13.1 - 13.5	1592	20	995	12.5	334 - 358	42 - 45	150 °C
9.	45SH	1.32 - 1.36	13.2 - 13.6	1592	20	1003	12.6	342 - 366	43 - 46	150 °C
10.	46SH	1.34 - 1.39	13.4 - 13.9	1592	20	1019	12.8	350 - 374	44 - 47	150 °C
11.	48SH	1.37 - 1.42	13.7 - 14.2	1592	20	1035	13.0	358 - 390	45 - 49	150 °C
12.	50SH	1.39 - 1.44	13.9 - 14.4	1592	20	1035	13.0	374 - 406	47 - 51	150 °C
13.	52SH	1.42 - 1.47	14.2 - 14.7	1512	19	1035	13.0	390 - 422	49 - 53	140 °C



Magnetic properties of UH-Type sintered Nd-Fe-B permanent magnets at room temperature (20 °C)

		Magnetic Properties								
No.	Material	B _r		H _{cJ,min}		H _{cB,min}		(BH) _{max}		T _{max} (°C)
	Grade	T	kG	kA/m	kOe	kA/m	kOe	kJ/m ³	MGOe	
1.	28UH	1.04 - 1.09	10.4 - 10.9	1990	25	788	9.9	207 - 231	26 - 29	180 °C
2.	30UH	1.08 - 1.13	10.8 - 11.3	1990	25	820	10.3	223 - 247	28 - 31	180 °C
3.	33UH	1.13 - 1.18	11.3 - 11.8	1990	25	860	10.8	247 - 271	31 - 34	180 °C
4.	35UH	1.17 - 1.22	11.7 - 12.2	1990	25	884	11.1	263 - 287	33 - 36	180 °C
5.	38UH	1.22 - 1.26	12.2 - 12.6	1990	25	923	11.6	287 - 310	36 - 39	180 °C
6.	40UH	1.25 - 1.29	12.5 - 12.9	1990	25	947	11.9	302 - 326	38 - 41	180 °C
7.	42UH	1.28 - 1.32	12.8 - 13.2	1990	25	971	12.2	318 - 342	40 - 43	180 °C
8.	44UH	1.31 - 1.35	13.1 - 13.5	1990	25	995	12.5	334 - 358	42 - 45	180 °C
9.	45UH	1.32 - 1.36	13.2 - 13.6	1910	24	1003	12.6	342 - 336	43 - 46	170 °C



Magnetic properties of EH-Type sintered Nd-Fe-B permanent magnets at room temperature (20°C)

		Magnetic Properties								
No.	Material	B_r		$H_{cJ,min}$		$H_{cB,min}$		$(BH)_{max}$		T_{max} (°C)
	Grade	T	kG	kA/m	kOe	kA/m	kOe	kJ/m ³	MGOe	
1.	28EH	1.04 - 1.09	10.4 - 10.9	2388	30	788	9.9	207 - 231	26 - 29	200 °C
2.	30EH	1.08 - 1.13	10.8 - 11.3	2388	30	820	10.3	223 - 247	28 - 31	200 °C
3.	33EH	1.13 - 1.18	11.3 - 11.8	2388	30	860	10.8	247 - 271	31 - 34	200 °C
4.	35EH	1.17 - 1.22	11.7 - 12.2	2388	30	884	11.1	263 - 287	33 - 36	200 °C
5.	38EH	1.21 - 1.26	12.1 - 12.6	2388	30	915	11.5	279 - 310	35 - 39	200 °C
6.	40EH	1.25 - 1.29	12.5 - 12.9	2388	30	947	11.9	302 - 326	38 - 41	200 °C
7.	42EH	1.28 - 1.32	12.8 - 13.2	2308	29	971	12.2	318 - 342	40 - 43	190 °C



Magnetic properties of AH-Type sintered Nd-Fe-B permanent magnets at room temperature (20°C)

		Magnetic Properties								
No.	Material	B _r		H _{cJ,min}		H _{cB,min}		(BH) _{max}		T _{max} (°C)
	Grade	T	kG	kA/m	kOe	kA/m	kOe	kJ/m ³	MGOe	
1.	28AH	1.04 - 1.09	10.4 - 10.9	2786	35	796	10.0	207 - 231	26 - 29	240 °C
2.	30AH	1.08 - 1.13	10.8 - 11.3	2786	35	820	10.3	223 - 247	28 - 31	240 °C
3.	33AH	1.13 - 1.18	11.3 - 11.8	2786	35	860	10.8	247 - 271	31 - 34	240 °C
4.	35AH	1.17 - 1.22	11.7 - 12.2	2786	35	891	11.2	263 - 287	33 - 36	240 °C
5.	38AH	1.21 - 1.26	12.1 - 12.6	2706	34	923	11.6	279 - 310	35 - 39	230 °C



Magnetic properties of sintered Nd-Fe-B permanent magnets at room temperature (20 °C)

		Magnetic Properties								
No.	Material Grade	B _r		H _{cJ,min}		H _{cB,min}		(BH) _{max}		T _{max} (°C)
		T	kG	kA/m	kOe	kA/m	kOe	kJ/m ³	MGOe	
1.	G52SH	1.42 - 1.47	14.2 - 14.7	1592	20	1035	13.0	390 - 422	49 - 53	120 °C
2.	G48UH	1.37 - 1.42	13.7 - 14.2	1990	25	1035	13.0	358 - 390	45 - 49	180 °C
3.	G50UH	1.39 - 1.44	13.9 - 14.4	1990	25	1035	13.0	374 - 406	47 - 51	180 °C
4.	G45EH	1.32 - 1.36	13.2 - 13.6	2388	30	1003	12.6	342 - 366	43 - 46	200 °C
5.	G40AH	1.25 - 1.29	12.5 - 12.9	2786	35	947	11.9	302 - 326	38 - 41	240 °C
6.	G42AH	1.28 - 1.32	12.8 - 13.2	2786	35	971	12.2	318 - 342	40 - 43	240 °C

Note: G refers to the grain boundary diffusion – GBD material grades.



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Sintered Nd-Fe-B Magnets

(BH) _{max} (MGOe)	Rare Earth		Conventional Process		Grain Boundary Diffusion		
	N	M	H	SH	UH	EH	AH
55							
52							
50							
48							
45							
42							
40							
38							
35							
33							
30							
28							
H _{cJ,min} (kOe)	12	14	17	20	25	30	35



Sintered Nd-Fe-B Magnets

$(BH)_{\max}$ (MGOe)	N	M	H	SH	UH	EH	AH
55	11	13					
52			16	GBD;19			
50					GBD		
48					GBD		
47							
46							
45					24	GBD	
44							
42						29	GBD
40							GBD
38							34
35							
33							
30							
28							
$H_{cJ,\min}$ (kOe)	12	14	17	20	25	30	35

Note: The colored cells present the material grades specified as Yunsheng standard.
 The numbers in colored cells indicate the minimum values for the intrinsic coercive force.
 The cells without numbers have the intrinsic coercive force given in the last line.