



GRADE (at 20° C)	Br		Hc j		Hcb		(BH) <sub>max</sub>		T <sub>w</sub> ° C
	T	kGs	kA/m	kOe	kA/m	kOe	kJ/m <sup>3</sup>	MGOe	
N28	1.04-1.09	10.4-10.9	960	12	788	9.9	207-231	26-29	80
N30	1.08-1.14	10.8-11.4	960	12	804	10.1	223-247	28-31	80
N33	1.14-1.19	11.4-11.9	960	12	843	10.6	247-271	31-34	80
N35	1.18-1.23	11.8-12.3	960	12	884	11.1	263-287	33-36	80
N38	1.23-1.28	12.3-12.8	960	12	915	11.5	287-310	36-39	80
N40	1.26-1.30	12.6-13.0	960	12	923	11.6	302-326	38-41	80
N42	1.29-1.33	12.9-13.3	960	12	923	11.6	318-342	40-43	80
N45	1.33-1.38	13.3-13.8	960	12	923	11.6	342-366	43-46	80
N48	1.38-1.42	13.8-14.2	960	12	923	11.6	366-390	46-49	80
N50	1.39-1.45	13.9-14.5	960	12	923	11.6	374-406	47-51	80
N52	1.43-1.48	14.3-14.8	960	12	875	11.0	390-422	49-53	80
N55	1.46-1.52	14.6-15.2	876	11	836	10.5	414-446	52-56	70
30M	1.08-1.14	10.8-11.4	1114	14	812	10.2	223-247	28-31	100
33M	1.14-1.19	11.4-11.9	1114	14	852	10.7	247-271	31-34	100
35M	1.18-1.23	11.8-12.3	1114	14	883	11.1	263-287	33-36	100
38M	1.23-1.28	12.3-12.8	1114	14	915	11.5	287-310	36-39	100
40M	1.26-1.30	12.6-13.0	1114	14	939	11.8	302-326	38-41	100
42M	1.29-1.33	12.9-13.3	1114	14	963	12.1	318-342	40-43	100
45M	1.33-1.38	13.3-13.8	1114	14	995	12.5	342-366	43-46	100
48M	1.37-1.42	13.7-14.2	1114	14	1019	12.8	358-390	45-49	100
50M	1.39-1.45	13.9-14.5	1114	14	1035	13.0	374-406	47-51	90
52M	1.42-1.48	14.2-14.8	1114	14	1035	13.0	390-422	49-53	90
55M	1.45-1.52	14.5-15.2	1035	13	971	12.2	414-446	52-56	80
28H	1.04-1.09	10.4-10.9	1353	17	788	9.9	207-231	26-29	120
30H	1.08-1.14	10.8-11.4	1353	17	820	10.3	223-247	28-31	120
33H	1.14-1.19	11.4-11.9	1353	17	860	10.8	247-271	31-34	120
35H	1.18-1.23	11.8-12.3	1353	17	884	11.1	263-287	33-36	120
38H	1.23-1.28	12.3-12.8	1353	17	923	11.6	287-310	36-39	120
40H	1.26-1.30	12.6-13.0	1353	17	947	11.9	302-326	38-41	120
42H	1.29-1.33	12.9-13.3	1353	17	971	12.2	318-342	40-43	120
45H	1.33-1.38	13.3-13.8	1353	17	1003	12.6	342-366	43-46	120
46H	1.35-1.40	13.5-14.0	1353	17	1019	12.8	350-374	44-47	120
47H	1.36-1.41	13.6-14.1	1353	17	1027	12.9	358-382	45-48	120
48H	1.37-1.42	13.7-14.2	1353	17	1035	13.0	358-390	45-49	110
50H	1.39-1.44	13.9-14.4	1353	17	1035	13.0	374-406	47-51	110





# YUNSHENG MATERIAL GRADES

(REV. DATE 08/18/2020)

GRADE (at 20° C)	Br		Hcj		Hcb		(BH) <sub>max</sub>		Tw
	T	kGs	kA/m	kOe	kA/m	kOe	kJ/m <sup>3</sup>	MGOe	° C
G52SH	1.42-1.47	14.2-14.7	1592	20	1035	13.0	390-422	49-53	150
G48UH	1.37-1.42	13.7-14.2	1990	25	1035	13.0	358-390	45-49	180
G50UH	1.39-1.44	13.9-14.4	1990	25	1035	13.0	374-406	47-51	180
G45EH	1.32-1.36	13.2-13.6	2388	30	1003	12.6	342-366	43-46	200
G40AH	1.25-1.29	12.5-12.9	2786	35	947	11.9	302-326	38-41	240
G42AH	1.28-1.32	12.8-13.2	2786	35	971	12.2	318-342	40-43	240

The above grades are our basic grades. We also have T and L-T series grades which are derived from these basic grades, for example: N45T, 42MT, L-38SHT, L-38UHT. T and L-T series grades apply to those magnets which have low temperature coefficient and corrosion resistance requirements. The main properties of the derived grade such as Br, Hcj, Hcb and (BH)<sub>max</sub> correspond to those of basic grades.

Additional performance data includes:

$\mu_{rec} = 1.05$       Basic grade:     $T_c = 310^\circ\text{C}$      $\alpha_{Br} = -0.12 \text{ \%/}^\circ\text{C}$      $B_{Hcj} = -0.70 \text{ \%/}^\circ\text{C}$   
                           “T” grade:         $T_c = 330^\circ\text{C}$      $\alpha_{Br} = -0.11 \text{ \%/}^\circ\text{C}$      $B_{Hcj} = -0.60 \text{ \%/}^\circ\text{C}$   
                           “L-T” grade:  $T_c = 350^\circ\text{C}$      $\alpha_{Br} = -0.10 \text{ \%/}^\circ\text{C}$      $B_{Hcj} = -0.50 \text{ \%/}^\circ\text{C}$

“G” grades designate Grain Boundary Diffusion (GBD) grades using Yunsheng patented technologies, without vacuum environment and reduced Heavy Rare Earth (HRE) content for Terbium (Tb) and Dysprosium (Dy).