XILAI TECH

Neodymium Magnet Grades (NdFeB) Specifications Table

Grade	Br (kGs)	HcB (kOe)	HcJ (kOe)	BH_{max} (MGOe)	Max Operating Temp.(°C)
N35	11.8-12.3	≥10.9	≥12.0	33-36	80
N38	12.2-12.6	≥11.3	≥12.0	33-39	
N40	12.6-12.9	≥11.6	≥12.0	38-41	
N42	12.9-13.2	≥11.6	≥12.0	40-43	
N45	13.2-13.7	≥11.6	≥12.0	43-46	
N48	13.6-14.2	≥10.5	≥11.0	45-49	
N50	13.9-14.3	≥10.5	≥11.0	47-51	
N52	14.2-14.6	≥10.0	≥11.0	49-53	
N55	14.6-15.2	≥9.0	≥11.0	52-55	
N35M	11.8-12.3	≥10.9	≥14.0	33-36	100
N38M	12.2-12.6	≥11.3	≥14.0	36-39	
N40M	12.6-12.9	≥11.6	≥14.0	38-41	
N42M	12.9-13.2	≥11.6	≥14.0	40-43	
N45M	13.2-13.7	≥11.6	≥14.0	43-46	
N48M	13.6-14.2	≥11.6	≥14.0	46-49	
N50M	13.9-14.3	≥11.6	≥14.0	47-51	
N52M	14.2-14.6	≥11.6	≥13.0	49-53	
N33H	11.4-11.9	≥10.5	≥17.0	31-34	120
N35H	11.8-12.3	≥10.9	≥17.0	33-36	
N38H	12.2-12.6	≥11.3	≥17.0	36-39	
N40H	12.6-12.9	≥11.6	≥17.0	38-41	
N42H	12.9-13.2	≥11.6	≥17.0	40-43	
N45H	13.2-13.7	≥11.6	≥16.0	43-46	
N48H	13.6-14.2	≥11.6	≥16.0	46-49	
N50H	13.9-14.3	≥11.6	≥16.0	48-51	
N52H	14.2-14.6	≥11.6	≥16.0	49-53	
N30SH	10.8-11.3	≥10.2	≥20.0	28-31	150
N33SH	11.4-11.9	≥10.5	≥20.0	31-34	
N35SH	11.8-12.3	≥10.9	≥20.0	33-36	
N38SH	12.2-12.6	≥11.3	≥20.0	36-39	
N40SH	12.6-12.9	≥11.6	≥20.0	38-41	
N42SH	12.9-13.2	≥11.6	≥20.0	40-43	
N45SH	13.2-13.7	≥11.6	≥20.0	43-46	
N48SH	13.6-14.2	≥11.6	≥19.0	45-49	
N50SH	13.9-14.3	≥11.6	≥19.0	48-51	
N28UH	10.4-10.8	≥9.6	≥25.0	26-29	180
N30UH	10.8-11.4	≥10.2	≥25.0	28-31	
N33UH	11.4-11.9	≥10.7	≥25.0	31-34	
N35UH	11.8-12.3	≥10.8	≥25.0	33-36	
N38UH	12.2-12.6	≥11	≥25.0	36-39	

N40UH	12.6-12.9	≥11.5	≥25.0	38-41	
N42UH	12.9-13.2	≥12.2	≥24.0	40-43	
N45UH	13.2-13.7	≥12.2	≥24.0	43-46	
N48UH	13.6-14.2	≥12.9	≥24.0	45-49	
N28EH	10.4-10.8	≥9.8	≥30.0	26-29	200
N30EH	10.8-11.4	≥10.2	≥30.0	28-31	
N33EH	11.4-11.9	≥10.3	≥30.0	31-34	
N35EH	11.8-12.3	≥10.5	≥29.0	33-36	
N28AH	10.4-10.8	≥9.8	≥34.0	26-29	220
N30AH	10.8-11.4	≥10.2	≥33.0	28-31	

Physical Properties of Sintered NdFeB

Density	7.4-7.6g/cm³	Curie Temp.	310-380 ℉
Temp. Coefff. Of Br	-0.09~-0.11%/℃	Temp. Coefff. Of Hc	-0.5~-0.6%/℃
Vickers Hardness	620 Hv	Electrical Resistivity	180-210 Ω.CM
Recoil Permeability	1.05	Flexural Strenth	25 kg/mm

Key Parameters Explained

1. Br (Remanence): Magnetic flux density retained after magnetization. Higher Br = stronger magnetic force.
2. HcB (Coercivity): Resistance to demagnetization by external fields. Critical for stability.
3. HcJ (Intrinsic Coercivity): Resistance to demagnetization under high temperatures or reverse fields.
4. BH_{max} (Energy Product): Overall magnetic energy density. Determines magnet efficiency.