

Neodymium Sintered - Standard Grades

version June 2015

Grade	Remanence		Normal coercivity		Intrinsic coercivity	Energy density		Temperature coefficient				Max. operating temp. °C
	Br mT	typ	Hcb kA/m	typ	Hcj kA/m (min) 20°C	BH(max) kJ/m3		% / °C				
						min	typ	20~100°C		20~150°C		
								Tc(Br) typ	Tc(Hcj) typ	Tc(Br) typ	Tc(Hcj) typ	
N35	1170	1220	871	925	955	263	279	0,12	0,78			80
N38	1220	1260	900	925	955	279	303	0,12	0,78			80
N40	1260	1300	908	925	955	303	318	0,12	0,78			80
N42	1300	1330	908	925	955	318	334	0,12	0,78			80
N45	1330	1370	908	925	955	334	358	0,12	0,78			80
N48	1370	1410	908	925	955	358	382	0,12	0,78			80
N50	1410	1440	830	860	875	382	398	0,12	0,78			70
N52	1430	1460	830	860	875	398	414	0,12	0,78			70
N33M	1140	1170	848	887	1114	239	263	0,12	0,72			100
N35M	1170	1220	871	925	1114	263	279	0,12	0,72			100
N38M	1220	1260	908	955	1114	279	303	0,12	0,72			100
N40M	1260	1300	938	986	1114	303	318	0,12	0,72			100
N42M	1300	1330	967	1008	1114	318	334	0,12	0,72			100
N45M	1330	1370	990	1039	1114	334	358	0,12	0,72			100
N48M	1370	1410	1019	1069	1114	358	382	0,12	0,72			100
N50M	1410	1440	1019	1069	1080	382	398	0,12	0,72			90
N52M	1430	1460	1019	1069	1080	398	414	0,12	0,72			90
N30H	1080	1120	807	853	1353	223	239	0,12	0,66	0,12	0,60	120
N33H	1140	1170	852	891	1353	239	263	0,12	0,66	0,12	0,60	120
N35H	1170	1220	875	930	1353	263	279	0,12	0,66	0,12	0,60	120
N38H	1220	1260	912	960	1353	279	303	0,12	0,66	0,12	0,60	120
N40H	1260	1300	942	990	1353	303	318	0,12	0,66	0,12	0,60	120
N42H	1300	1330	972	1013	1353	318	334	0,12	0,66	0,12	0,60	120
N44H	1330	1360	994	1036	1353	334	350	0,12	0,66	0,12	0,60	120
N46H	1360	1380	1017	1051	1353	350	366	0,12	0,66	0,12	0,60	120
N48H	1370	1410	1024	1074	1353	366	382	0,12	0,66	0,12	0,60	120
N50H	1410	1440	1054	1097	1353	382	398	0,12	0,66	0,12	0,60	120
N30SH	1080	1120	811	857	1592	223	239	0,115	0,62	0,12	0,56	150
N33SH	1140	1170	856	896	1592	239	263	0,115	0,62	0,12	0,56	150
N35SH	1170	1220	879	934	1592	263	279	0,115	0,62	0,12	0,56	150
N38SH	1220	1260	916	965	1592	279	303	0,115	0,62	0,12	0,56	150
N40SH	1260	1300	946	995	1592	303	318	0,115	0,62	0,12	0,56	150
N42SH	1300	1330	976	1018	1592	318	334	0,115	0,62	0,12	0,56	150
N44SH	1330	1360	999	1041	1592	334	350	0,115	0,62	0,12	0,56	150
N46SH	1360	1380	1022	1056	1592	350	366	0,115	0,62	0,12	0,56	150
N28UH	1040	1080	785	831	1989	199	223	0,110	0,58	0,115	0,52	180
N30UH	1080	1120	815	862	1989	223	239	0,110	0,58	0,115	0,52	180
N33UH	1140	1170	860	900	1989	239	263	0,110	0,58	0,115	0,52	180
N35UH	1170	1220	883	938	1989	263	279	0,110	0,58	0,115	0,52	180
N38UH	1220	1260	921	969	1989	279	303	0,110	0,58	0,115	0,52	180
N40UH	1260	1300	951	1000	1989	303	318	0,110	0,58	0,115	0,52	180
N42UH	1300	1330	981	1023	1989	318	334	0,110	0,58	0,115	0,52	180
N28EH	1040	1080	785	831	2387	199	223	0,105	0,54	0,110	0,48	200
N30EH	1080	1120	815	862	2387	223	239	0,105	0,54	0,110	0,48	200
N33EH	1140	1170	860	900	2387	239	263	0,105	0,54	0,110	0,48	200
N35EH	1170	1220	883	938	2387	263	279	0,105	0,54	0,110	0,48	200
N38EH	1220	1260	921	969	2387	279	303	0,105	0,54	0,110	0,48	200
N28AH	1040	1080	785	831	2787	199	223	0,105	0,50	0,110	0,45	220
N30AH	1080	1120	815	862	2787	223	239	0,105	0,50	0,110	0,45	220
N33AH	1140	1170	860	900	2787	239	263	0,105	0,50	0,110	0,45	220
N25BH	980	1020	740	785	3000	183	199	0,105	0,50	0,110	0,45	240

Physical properties at room temperature (20°C)				The maximum operating temperature			
Temp.Coeff. of Br:	-0.11%/°C (20-100°C)	Temp. Coeff. of iHc:	-0.60%/°C (20-100°C)	The maximum operating temperature is determined by the final lay-out of themagnetic circuit. The estimated values refer to magnets which are operating at the working point of B/μOH=1			
Density:	7.4-7.6g/cm³	Electrical resistivity:	144 μΩ cm				
Vickers Hardness:	570 Hv	Flexural Strength:	25kg/mm				
Tensile strength:	8.0kg/mm²	Coeff. of Thermal Expansion:	4 x 10 ⁻⁶ /°C				
Specific Heat:	0.12kCal/(kg.°C)	Thermal Conductivity:	7.7kcal/(m.h.°C)				
Young's Modulus:	1.6 x 10 ¹¹ N/m²	Rigidity:	0.64N/m²				
Poisson's Ratio:	0.24	Compressibility:	9.8 x 10 ⁻¹² m²/N				
Curie Temperature:	310-340°C						

Important notice:

Dimensions and shape of the magnet, in combination with required manufacturing processes, may cause the magnetic and physical characteristics to vary from typical values. Therefore, all data presented in this document are for general reference only and should not be relied upon to represent standard characteristics, nor are they guaranteed upon use. Bakker Magnetics reserves the right to change information in this document, including magnet performance standards, specifications, and characteristics without notice.