

## Neodymium Sintered - Corrosion Stable & Temperature resistant

version June 2015

Grade	Remanence		Normal coercivity		Intrinsic coercivity				Energy density		Temperature coefficient				Max. operating temp. °C
	Br mT		Hcb kA/m		Hcj kA/m (min)				BH(max) kJ/m3		20~100°C		20~150°C		
	min	typ	min	typ	20°C	100°C for "/ST"	120°C for "/ST"	150°C for "/ST"	min	typ	Tc(Br) typ	Tc(Hcj) typ	Tc(Br) typ	Tc(Hcj) typ	
N30H/ST	1080	1120	807	853	1353		500		223	239	0,115	0,64	0,115	0,58	120
N33H/ST	1140	1170	852	891	1353		500		239	263	0,115	0,64	0,115	0,58	120
N35H/ST	1170	1220	875	930	1353		500		263	279	0,115	0,64	0,115	0,58	120
N38H/ST	1220	1260	912	960	1353		500		279	303	0,115	0,64	0,115	0,58	120
N40H/ST	1260	1300	942	990	1353		500		303	318	0,115	0,64	0,115	0,58	120
N42H/ST	1300	1330	972	1013	1353		500		318	334	0,115	0,64	0,115	0,58	120
N44H/ST	1330	1360	994	1036	1353		500		334	350	0,115	0,64	0,115	0,58	120
N46H/ST	1360	1380	1017	1051	1353		500		350	366	0,115	0,64	0,115	0,58	120
N48H/ST	1370	1410	1024	1074	1353		500		366	382	0,115	0,64	0,115	0,58	120
N50H/ST	1410	1440	1054	1097	1353		500		382	398	0,115	0,64	0,115	0,58	120
N30SH/ST	1080	1120	811	857	1592		500		223	239	0,11	0,6	0,115	0,54	150
N33SH/ST	1140	1170	856	896	1592		500		239	263	0,11	0,6	0,115	0,54	150
N35SH/ST	1170	1220	879	934	1592		500		263	279	0,11	0,6	0,115	0,54	150
N38SH/ST	1220	1260	916	965	1592		500		279	303	0,11	0,6	0,115	0,54	150
N40SH/ST	1260	1300	946	995	1592		500		303	318	0,11	0,6	0,115	0,54	150
N42SH/ST	1300	1330	976	1018	1592		500		318	334	0,11	0,6	0,115	0,54	150
N44SH/ST	1330	1360	999	1041	1592		500		334	350	0,11	0,6	0,115	0,54	150
N46SH/ST	1360	1380	1022	1056	1592		500		350	366	0,11	0,6	0,115	0,54	150
N28UH/ST	1040	1080	785	831	1989		720		199	223	0,105	0,56	0,11	0,50	180
N30UH/ST	1080	1120	815	862	1989		720		223	239	0,105	0,56	0,11	0,50	180
N33UH/ST	1140	1170	860	900	1989		720		239	263	0,105	0,56	0,11	0,50	180
N35UH/ST	1170	1220	883	938	1989		720		263	279	0,105	0,56	0,11	0,50	180
N38UH/ST	1220	1260	921	969	1989		720		279	303	0,105	0,56	0,11	0,50	180
N40UH/ST	1260	1300	951	1000	1989		720		303	318	0,105	0,56	0,11	0,50	180
N42UH/ST	1300	1330	981	1023	1989		720		318	334	0,105	0,56	0,11	0,50	180
N28EH/ST	1040	1080	785	831	2387		950		199	223	0,10	0,52	0,105	0,46	200
N30EH/ST	1080	1120	815	862	2387		950		223	239	0,10	0,52	0,105	0,46	200
N33EH/ST	1140	1170	860	900	2387		950		239	263	0,10	0,52	0,105	0,46	200
N35EH/ST	1170	1220	883	938	2387		950		263	279	0,10	0,52	0,105	0,46	200
N38EH/ST	1220	1260	921	969	2387		950		279	303	0,10	0,52	0,105	0,46	200
N28AH/ST	1040	1080	785	831	2787		1200		199	223	0,10	0,48	0,105	0,43	220
N30AH/ST	1080	1120	815	862	2787		1200		223	239	0,10	0,48	0,105	0,43	220
N33AH/ST	1140	1170	860	900	2787		1200		239	263	0,10	0,48	0,105	0,43	220
N25BH/ST	980	1020	740	785	3000		1400		183	199	0,10	0,48	0,105	0,43	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)	<p>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</p> <p><b>Corrosion stable grades:</b></p> <p>Standard PCT test: P=2,0 atm, RH=100%, 120°C, after 7 x 24 hours, weight loss &lt; 5mg/cm2</p> <p>Alternative HAST test: P=2,6 atm, RH= 95%, 130°C, after 4 x 24 hours, weight loss &lt; 3mg/cm2</p>	
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 <sup>11</sup> N/m²	Rigidity:	0.64N/m²		
Poisson's Ratio:	0.24	Compressibility:	9.8 x 10-12m²/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.