

# Bonded NdFeB Magnets' Specifications



**ADVANCED MAGNETS**

For Greener & Smarter Future

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**Table I Bonded NdFeB Magnets' Grades and Their Magnetic Properties**

Grade	$B_r$		$H_{cb}$		$H_{cj}$		$(BH)_{max}$		$T_w$
	kGs	T	kOe	kA/m	kOe	kA/m	MGOe	$\text{kJ/m}^3$	$^{\circ}\text{C}$
HGT-12	7.0-7.6	0.70-0.76	5.7-6.2	454-493	8-11	637-875	10.0-11.5	80-92	$\leq 150$
HGT-11	6.8-7.3	0.68-0.73	5.6-6.0	446-477	8-11	637-875	9.5-10.5	76-84	$\leq 150$
HGT-10H	6.4-6.9	0.64-0.69	5.5-5.9	438-469	10-13	796-1035	9.0-10.0	72-80	$\leq 180$
HGT-10	6.6-7.2	0.66-0.72	5.4-6.0	430-477	8-10	637-796	9.5-10.5	76-84	$\leq 160$
HGT-9	6.3-6.9	0.63-0.69	5.2-5.8	414-462	8-10	637-796	8.5-9.5	68-76	$\leq 160$
HGT-8H	6.0-6.6	0.60-0.66	5.0-5.6	398-446	10-13	796-1035	8-9	64-72	$\leq 180$
HGT-8	5.8-6.4	0.58-0.64	4.8-5.4	382-430	8-10	637-796	7.5-8.5	60-68	$\leq 160$
HGT-7	5.3-5.9	0.53-0.59	4.6-5.2	366-414	8-10	637-796	6.5-7.5	52-60	$\leq 160$
HGT-6	4.8-5.4	0.48-0.54	4.4-5.0	350-398	8-10	637-796	5.5-6.5	44-52	$\leq 160$
HGT-5	4.3-4.9	0.43-0.49	4.0-4.6	318-366	7-9	557-716	4.5-5.5	36-44	$\leq 150$
HGT-4	3.8-4.4	0.38-0.44	3.5-4.2	279-334	7-9	557-716	3.5-4.5	28-36	$\leq 150$
HGT-3	3.4-4.0	0.34-0.40	3.2-3.8	255-302	7-9	557-716	2.5-3.5	20-28	$\leq 150$
HGT-2	3.0-3.6	0.30-0.36	2.8-3.6	223-286	7-9	557-716	2-3	16-24	$\leq 150$

Note:

- \* The data in the above table were samples' results tested at the temperature of 20  $^{\circ}\text{C}$ .
- \* The temperature coefficients of  $B_r$  and  $H_{cj}$  are  $\alpha(B_r)$ : -0.10~-0.13 %/ $^{\circ}\text{C}$  and  $\beta(H_{cj})$ : -0.40~-0.60 %/ $^{\circ}\text{C}$ , respectively.
- \* The above data are only for reference, magnets can be tailored according to customers' personalized requirements.

**Table II Bonded NdFeB Magnets' Shapes**



Ring Magnets



Abnormal Shape Magnets



Magnetic Assemblies with Metal



Rotor Assemblies



Arc/Segment Magnets



Block/Rectangular Magnets

Note:

\* Other shapes of bonded NdFeB magnets can also be tailored according to customers' specific requirements.

**Table III Some Physical Properties of Bonded NdFeB Magnets**

Parameter	Unit	Value
Density ( $\rho$ )	$\text{g/cm}^3$	4.0-6.5
Curie Temperature ( $T_c$ )	$^{\circ}\text{C}$	300-350
Recoil Permeability ( $\mu_{\text{rec}}$ )	-	1.20
Rockwell Hardness (HR)	MPa	35-45
Compressive Strength ( $\sigma_{bc}$ )	MPa	800-1000
Tensile Strength ( $\sigma_b$ )	MPa	200
Thermal Expansivity ( $\alpha$ )	$10^{-6}/^{\circ}\text{C}$	1-2

Note:

\* The above data are only for reference, specific magnets maybe have different values.