

## Compression moulding bonded NdFeB



### Product description

Generally, the bonded NdFeB magnet is produced by molding compression of the compound NdFeB alloy powder with epoxy resin, also it can be made by injection or extrusion from NdFeB alloy powder mixed with plastic.

The characteristics are as follows:

1. **Higher Magnet Property:** the magnet property of bonded NdFeB magnet is between that of sintered NdFeB and ferrite, and with good consistency and stability.
2. **Large Freeness of Product Shapes and High Precision of Dimension:** the magnet shape and dimension are decided by the tooling, like ring, segment, block, etc., without further sintering and mechanical machining processes.
3. **Good Corrosion Resistance:** after electrodeposited or through other special treatments, it can be used under normal or unfavorable environment conditions for a long time.
4. **Diverse magnetization:** Multi-pole magnetization and screw angle magnetization are available, and the field distribution could be square, sinusoid and so on.

5. It has **high production efficiency**, suitable for mass production. The bonded NdFeB magnet is mainly used for all kinds of micro–miniature motors, such as spindle motor, stepping motor, synchronous motor, DC motor and brushless DC motor. It can replace sintered NdFeB magnet and ferrite, making motor assembling simpler and more reliable, reducing costs and improving efficiency.

Magnetic Properties Of Compression Moulding NdFeB Bonded Magnet

Part No.	Br		Hcb		Hci		(BH)max		$\alpha$	$\beta$	Max. Temp. °C
	kGs	mT	kOe	kA/m	kOe	kA/m	MGoe	kJ/m <sup>3</sup>	%/°C	%/°C	
101	6.8-7.1	680-710	5.5-6.0	440-480	9.1-9.8	730-780	10.0-11.0	80-88	-0.11	-0.39	120
102	6.9-7.1	690-710	5.4-5.8	430-460	9.8-10.8	780-864	9.4-10.2	75.2-81.6	-0.13	-0.4	120
103	7.1-7.6	710-760	5.0-5.6	397-446	8.0-8.9	636-708	10.0-11.0	79-88	-0.11	-0.39	120
111	6.6-7.0	660-700	4.9-5.5	390-440	9.0-9.8	720-780	9.0-10.0	72-80	-0.11	-0.36	120
121	5.9-6.4	590-640	5.0-5.6	400-448	13.0-17.0	1040-1360	8.0-9.0	64-72	-0.13	-0.41	120
131	5.9-6.3	590-630	5.0-5.5	400-440	15.0-18.0	1200-1440	8.0-9.0	64-72	-0.07	-0.4	140
141	6.4-7.0	640-700	5.4-5.8	430-460	9.2-10.0	730-800	9.0-10.0	72-80	-0.08	-0.39	140
151	6.0-6.6	600-660	5.2-5.8	410-460	11.5-13.5	920-1080	8.2-9.2	65-73	-0.14	-0.36	160
161	6.8-7.4	680-740	5.0-5.4	400-430	6.5-7.5	520-580	9.6-10.6	77-85	-0.11	-0.39	90
171	6.0-6.5	600-650	5.0-5.4	400-430	8.5-9.2	680-740	8.0-8.8	640-70	-0.12	-0.43	120
181	7.0-8.0	700-800	5.0-5.5	400-440	6.5-7.5	520-600	10.0-12.0	80-96	-0.11	-0.39	90
191	6.5-6.9	650-690	5.2-6.2	416-496	11.0-13.5	880-1080	9.0-10.0	72-80	-0.14	-0.36	160
271	6.0-6.4	600-640	5.0-5.4	400-430	9.0-10.0	720-800	7.0-8.0	56-64	-0.1	-0.42	120
272	5.5-6.0	550-600	5.0-5.4	400-430	9.0-10.0	720-800	6.0-7.0	48-56	-0.1	-0.42	120
273	5.0-5.5	500-550	4.5-5.0	360-400	9.0-10.0	720-800	5.0-6.0	40-48	-0.1	-0.42	120
274	4.5-5.0	450-500	4.5-5.0	360-400	9.0-10.0	720-800	4.0-5.0	32-40	-0.1	-0.42	120
275	4.0-4.5	400-450	4.0-4.5	320-360	9.0-10.0	720-800	3.0-4.0	24-32	-0.1	-0.42	120
291	6.4-6.8	640-680	5.2-6.2	416-496	11.0-13.5	880-1080	8.0-9.0	64-72	-0.14	-0.36	160
292	6.0-6.4	600-640	5.2-6.2	416-496	11.0-13.5	880-1080	7.0-8.0	56-64	-0.14	-0.36	160
293	5.4-6.0	540-600	4.5-5.5	360-440	11.0-13.5	880-1080	6.0-7.0	48-56	-0.14	-0.36	160
294	5.0-5.4	500-540	4.5-5.5	360-440	11.0-13.5	880-1080	5.0-6.0	40-48	-0.14	-0.36	160
295	4.5-5.0	450-500	4.0-5.0	320-400	11.0-13.5	880-1080	4.0-5.0	32-40	-0.14	-0.36	160
301	6.4-6.8	640-680	4.3-4.7	340-375	8.2-8.6	650-690	7.1-7.7	57-61	-0.12	-0.43	120
310	4.8-5.2	480-520	1.0-1.3	80-104	1.4-2.0	110-160	1.0-1.6	8.0-12.8	-0.12	-0.43	120
401	1.9-2.2	190-220	1.0-1.2	80-96	1.6-2.0	128-160	0.65-0.85	5.2-6.8	-0.13	-0.4	120
410	2.8-3.2	280-320	1.8-2.2	144-176	6.4-7.4	510-590	1.5-2.1	12-16.8	-0.13	-0.4	120

Explanation: Because NdFeB powders are so versatile, this is just a brief summary of our capabilities. Please contact us for more information.

Definitions: The temperature coefficient of Br is  $\alpha$ , from 20 to 120°C. The temperature coefficient of Hci is  $\beta$ , from 20 to 120°C.

Maximum Operating temperature is dependent upon the specific application and geometry of the magnet.

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