

Injected SmFeN

I-SFN

MATERIAL TYPE

Plastic

SURFACE PROTECTION

Not necessary

ORIENTATION & MAGNETIZATION

Single Pole / Multiple Poles (Halbach Sinusoidal, Skewed, Trapezoidal, Discrete)

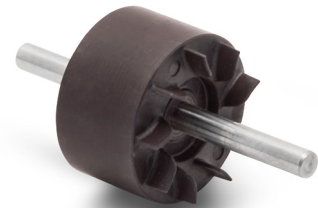
TEMPERATURE BEHAVIOR

HcJ TEMPERATURE COEFFICIENT*	% / °C	0,38-0,45
------------------------------	--------	-----------

*The temperature coefficients are nominal reference values only. They can vary for different temperatures and don't need to be linear.
**The maximum operating temperature depends on the magnet shape, size and on the specific application. Maximum working temperature data shown on the catalogue are based on the international standard $B/H = P_c > 0,7$.

PHYSICAL AND MECHANICAL TYPICAL PROPERTIES

CURIE TEMPERATURE	°C	>310 (- 470)
RELATIVE PERMEABILITY	(μ_r)	1,10-1,15
SATURATION FIELD	kOe	20-25
ELECTRICAL RESISTIVITY	Ωcm	n.a.
FLEXURAL STRENGTH	N / mm ²	80-95
COMPRESSIVE STRENGTH	N / mm ²	n.a.
HARDNESS	Sh D	n.a.
THERMAL EXPANSION COEF \perp c	10 ⁻⁶ / °C	n.a.
THERMAL EXPANSION COEF // c	10 ⁻⁶ / °C	n.a.



Injected SmFeN

I-SFN

GRADE	Br		HcB		HcJ		BH max		Max. Working Temp.** °C
	G	T	Oe	kA/m	Oe	kA/m	MGOe	kJ/m ³	
SmFeN with Binder PA12									
Isotropic Material									
I-SFN 2012	3.620 - 3.840	0,362 - 0,384	2.328 - 2.472	185 - 197	3.880 - 4.120	309 - 328	2,84 - 3,47	23 - 28	≤ 120
I-SFN 3012	4.250 - 4.550	0,425 - 0,455	2.800 - 3.200	222 - 255	6.500 - 6.900	517 - 549	3,60 - 4,00	28,6 - 31,8	≤ 120
I-SFN 4012	4.753 - 5.047	0,475 - 0,505	3.279 - 3.481	261 - 277	5.820 - 6.180	463 - 492	4,59 - 5,61	37 - 45	≤ 120
I-SFN 5012	5.238 - 5.562	0,550 - 0,584	3.715 - 3.945	296 - 314	6.014 - 6.385	479 - 508	5,54 - 6,78	44 - 54	≤ 120
I-SFN 5512	5.500 - 5.840	0,550 - 0,584	4.433 - 4.707	353 - 375	6.400 - 6.800	510 - 540	6,54 - 8,00	52 - 64	≤ 120
I-SFN 6512	5.839 - 6.201	0,584 - 0,620	4.520 - 4.800	360 - 382	6.400 - 6.800	510 - 540	7,32 - 8,94	58 - 71	≤ 120
I-SFN 7012	6.198 - 6.582	0,620 - 0,658	4.869 - 5.171	388 - 412	6.400 - 6.800	510 - 540	8,24 - 10,00	68 - 80	≤ 120
Anisotropic Material									
I-SFN 8012	6.683 - 7.097	0,668 - 0,710	4.966 - 5.274	395 - 420	8.546 - 9.070	680 - 725	9,27 - 11,30	74 - 90	≤ 120
I-SFN 10012	7.576 - 8.044	0,758 - 0,804	5.529 - 5.871	440 - 497	9.895 - 10.500	790 - 835	11,20 - 13,70	89 - 109	≤ 120
I-SFN 11012	7.954 - 8.446	0,795 - 0,845	5.073 - 5.387	404 - 429	10.670 - 11.330	850 - 900	12,50 - 15,30	100 - 122	≤ 120