

Injected NdFeB

I-REN

MATERIAL TYPE

Plastic

SURFACE PROTECTION

Not necessary

ORIENTATION & MAGNETIZATION

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

TEMPERATURE BEHAVIOR

Br TEMPERATURE COEFFICIENT*	% / °C	-0,12
HcJ TEMPERATURE COEFFICIENT*	% / °C	-0,4

*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 $B/H = Pc > 0,7$.

PHYSICAL AND MECHANICAL TYPICAL PROPERTIES

CURIE TEMPERATURE	°C	310
RELATIVE PERMEABILITY	(μ_r)	1,15
SATURATION FIELD	kOe	> 38
ELECTRICAL RESISTIVITY	Ωm	n.a.
FLEXURAL STRENGTH	N / mm ²	n.a.
TENSILE STRENGTH	N / mm ²	n.a.
IMPACT STRENGTH	N / mm ²	n.a.
ROCKWELL HARDNESS	HRC	90 - 95
FLEXURAL TEMPERATURE	°C	n.a.
THERMAL CONDUCTIVITY	kcal/m/hr/°C	n.a.



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GRADE	Br		HcB		HcJ		BH max		Max. Working Temp.**
	G	T	Oe	kA/m	Oe	kA/m	MGOe	kJ/m ³	
Injected NdFeB with Binder PA12									
Isotropic Material									
I-REN 3012	4.385 - 4.660	0,438 - 0,466	3.580 - 3.780	285 - 300	8.090 - 8.290	644 - 660	4,10 - 4,50	32,6 - 35,8	≤ 120
I-REN 3512	5.000 - 5.300	0,500 - 0,530	4.000 - 4.400	318 - 350	9.200 - 10.000	732 - 795	5,30 - 5,90	42,1 - 46,9	≤ 120
I-REN 4512	5.425 - 5.760	0,543 - 0,576	4.250 - 4.450	338 - 354	7.970 - 8.170	0,635 - 0,650	6,10 - 6,70	48,6 - 53,3	≤ 120
I-REN 5512	5.770 - 6.120	0,577 - 0,612	4.520 - 4.720	360 - 376	8.200 - 8.400	653 - 668	7,10 - 7,80	56,5 - 62,1	≤ 120
I-REN 6512	6.080 - 6.460	0,608 - 0,646	4.700 - 4.900	374 - 390	7.520 - 7.720	699 - 615	7,90 - 8,70	62,9 - 69,2	≤ 120
Anisotropic Material									
I-REN 3512	5.000 - 5.300	0,500 - 0,530	4.000 - 4.400	318 - 350	9.200 - 10.000	732 - 795	5,30 - 5,90	42,1 - 46,9	≤ 120
I-REN 4212	5.500 - 6.000	0,550 - 0,600	4.150 - 4.300	330 - 342	8.050 - 8.300	640 - 660	5,90 - 6,20	47,2 - 49,6	≤ 120
Injected NdFeB with Binder PPS									
Isotropic Material									
I-REN 20PPS	3.260 - 3.460	0,326 - 0,346	2.770 - 3.000	220 - 239	7.350 - 7.960	585 - 633	2,10 - 2,30	16,7 - 18,3	≤ 120
I-REN 30PPS	4.120 - 4.380	0,412 - 0,438	3.360 - 3.640	267 - 290	7.680 - 8.320	611 - 662	3,60 - 3,80	28,6 - 30,2	≤ 120
I-REN 40PPS	5.000 - 5.600	0,500 - 0,560	4.100 - 4.900	326 - 390	10.000 - 12.000	812 - 955	5,40 - 6,40	42,9 - 50,9	≤ 180
I-REN 50PPS	5.120 - 5.440	0,512 - 0,544	4.370 - 4.730	348 - 377	10.200 - 12.200	812 - 955	5,90 - 6,10	46,9 - 48,6	≤ 120
I-REN 60PPS	5.580 - 5.925	0,558 - 0,593	4.600 - 4.990	366 - 397	8.450 - 9.150	672 - 728	6,80 - 7,00	54,1 - 55,7	≤ 180
Anisotropic Material									
I - REN 80PPS	6.790 - 7.000	0,679 - 0,700	5.280 - 5.720	421 - 456	11.060 - 11.750	880 - 935	9,0 - 11,0	72 - 88	≤ 120