Catalogue: Plastic Magnets

Material Code			PMF-06N20	PMF-06N02	PMF-12N20	PMF-PPS16	PMN-12N40	PMN-12N90	PMS-12N40	PMS-12N140
Composition			Sr ferrite / PA6 (Injection)	Ba ferrite / PA12 (Injection)	Sr ferrite / PA12 (Injection)	Sr ferrite / PPS (Injection)	NdFeB / PA12 (Injection)		SmFeN / PA12 (Injection)	
Orientation			Anisotropic	Isotropic	Anisotropic	Anisotropic	Isotropic		Anisotropic	
Magnetic properties [min/max]	Test piece		as block			as block				
	Residual induction Br	[mT]	283 / 293	88 / 108	283 / 297	250 / 264	400 / 460	630 / 666	400 / 450	760 / 810
		[G]	2,830 / 2,930	880 / 1080	2,830 / 2,970	2,500 / 2,640	4,000 / 4,600	6,300 / 6,660	4,000 / 4,500	7,600 / 8,100
	Coercive force Hcb	[kA/m]	175 / 198	48 / 95	175 / 207	≥167	231 / 342	≥390	260 / 300	485 / 510
		[Oe]	2,200 / 2,500	600 / 1,200	2,200 / 2,600	≥2,100	2,900 / 4,300	≥4,900	3,300 / 3,800	6,100 / 6,700
	Intrinsic coercive force Hcj	[kA/m]	203 / 243	143 / 207	195 / 235	≥191	≥517	≥653	530 / 610	660 / 755
		[Oe]	2,550 / 3,050	1,800 / 2,600	2,450 / 2,950	≥2,400	≥6,500	≥8,200	6,700 / 7,700	8,300 / 9,500
	Maximum energy product (BH)max	[kJ/m^3]	15.5 / 17.2	0.9 / 2.5	15.5 / 17.2	12.3 / 13.8	28.6 / 36.6	63.4 / 71.4	28 / 35	107 / 115
		[MG·Oe]	2.0 / 2.2	0.1 / 0.3	2.0 / 2.2	1.5 / 1.7	3.6 / 4.6	8.0 / 9.0	3.5 / 4.4	13.5 / 14.5
Physical properties [min/max]	Density	[g/cm^3]	3.77	2.76 / 2.86	3.73	3.54	4.35 / 4.65	5.68	3.7 / 3.9	4.7 / 4.9
	Temperature coefficient ΔBr/Br	[%/ºC]	-0.18	-0.18	-0.18	-0.18	-0.11	-0.11	-0.11	-0.07
	Flexural strength	[kgf/mm^2]	17	12	13	10	12	8	5	5
		[MPa]	160	110	130	100	120	80	50	50
	Tensile strength	[kgf/mm^2]	9.5	5.0	5.9	5.5	---	3.5	3.3	3.6
		[MPa]	93	49	58	54	---	34	32	35
	Thermal expansion coefficient	[10^{-5}/ºC]	3.70	5.42 (-30 / 35ºC)	2.63 (-30 / 35ºC)	2.14	---	2.07	6.94	5.80
	Heat distortion temperature	[ºC]	172	126	130	208	132 / 145	132 / 145	---	---