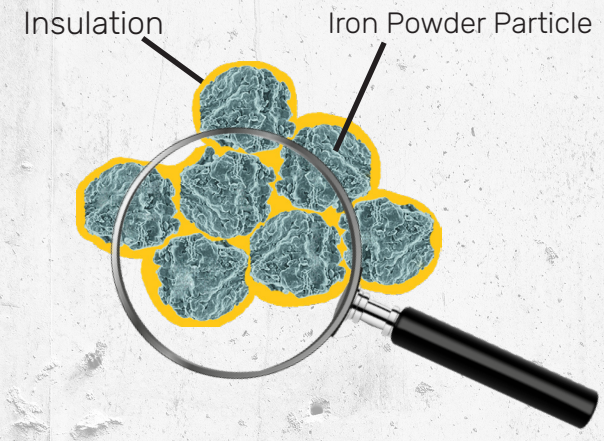
3OMATEC
MORE THAN JUST MAGNETS

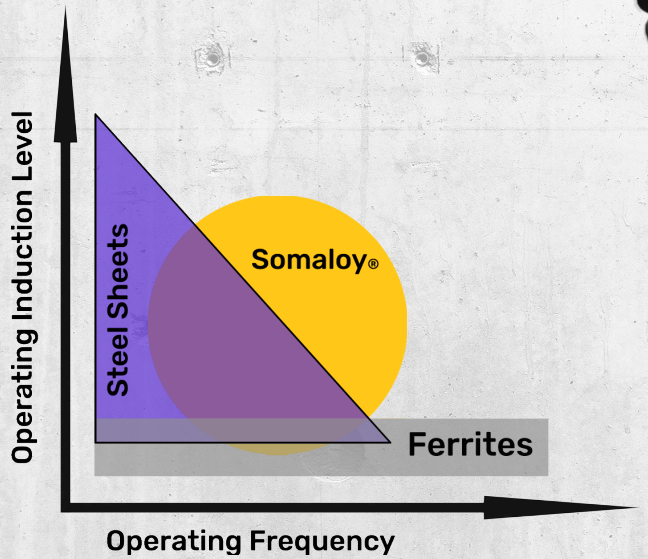
Iron Core Material-Somaloy®

- soft magnetic material
- high purity iron powder
- high natural saturation
-electrically insulated surface



Result in 3D-material with

- high magnetic saturation
- low eddy current loss
- sufficient strength

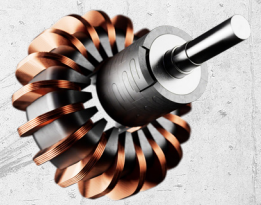


Advantages

- 3D-shape with strong resistance
- substitution of laminated cores for mtors
- 3D flux properties
- higher effectiveness for frequencies from 2KHZ

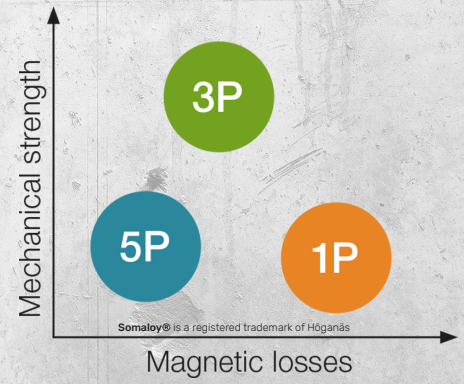
Applications

- brushless DC motor
- linear motor
- transverse/axial flux motor
- claw pole motor
- ignition coil
- fuel injection valves



Benefit

- cost reduction by size & weight reduction
- high torque and power density solutions
- unique 3D extended design approach
- efficient volume production of components
- simplified winding arrangements
- permanent magnet and winding reduction
- suitable for automated assembly



Properties of Soft Magnetic Composite Material

						Core Loss at 1 T (W/kg)		
Material	T Max [°C]	B@10000ˆA/m [T]	Permeabilität µmax	TRS [MPa]	Resistivity [µOhm m]	5x5mm /100 Hz	5x5mm/1000 Hz	15x15mm/1000 Hz
Somaloy ® 700HR-1P	550	1.53	440	35	1'000	10	125	136
Somaloy ® 700-1P	550	1.56	540	40	400	10	126	152
Somaloy ® 130i-1P	550	1.40	290	33	8'000	12	264	134
Somaloy ® 500-1P	550	1.51	500	50	70	13	387	305
Somaloy ® 110i-1P	550	1.33	220	34	7600	14	276	155
Somaloy ® 700HR-3P	550	1.57	770	120	600	10	130	147
Somaloy ® 700-3P	550	1.61	850	125	200	10	132	183
Somaloy ® 1000-3P	550	1.63	950	140	70	10	143	288
Somaloy ® 700HR-5P	650	1.57	600	60	700	7	92	106
Somaloy ® 1000-5P	650	1.59	720	65	90	7	103	217
Somaloy ® 130i-5P	650	1.47	350	35	20'000	8	93	94
Somaloy ® 110i-5P	650	1.33	220	42	18'000	10	108	109

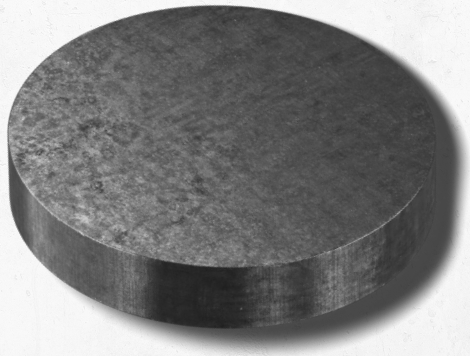
*Magnetic Properties Measured according to CEI/IEC 60404-6:2003 on ring sample (OD55 ID45 H5 mm). **Somaloy®** is a registered trademark of Höganäs

Prototypes

We can offer 3 materials in 2 sizes from stock

Size: - Ø 55H10
- Ø 20H20

Materials: - 130i-1P
- 700-3P
- 700HR-5P



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