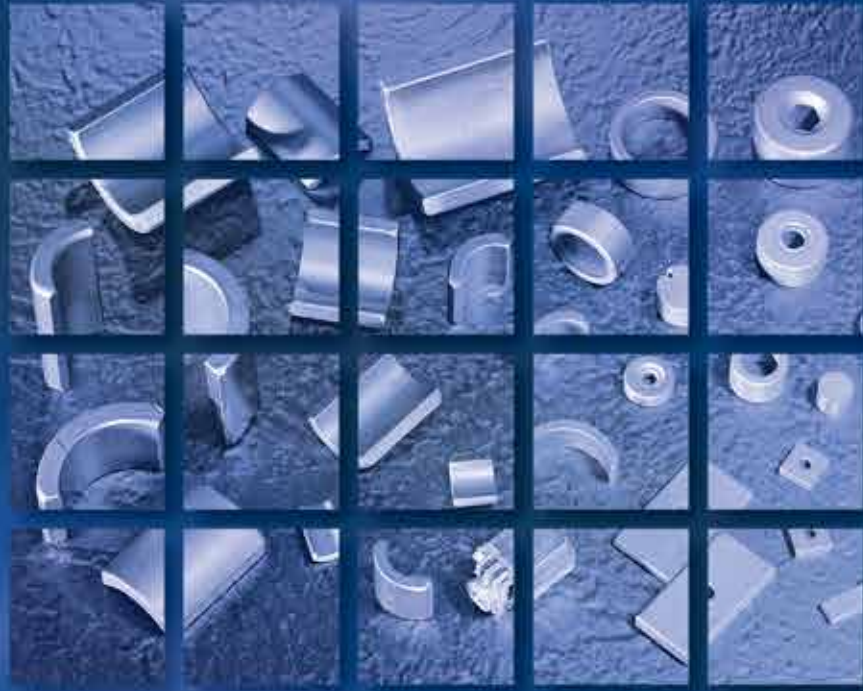


Superrite[®]

Hard Ferrite-Isotropic / Anisotropic Magnets





秀波關係企業
SUPERRITE GROUP

台北總公司
Taipei Head Office
(新大樓示意圖)



三峽廠 San Hsia Plant



大溪廠 Tah Hsi Plant



馬來西亞廠 Malaysia Plant



屏東廠 Ping Tung Plant



東莞廠 Dong Guan Plant



秀波關係企業 SUPERRITE GROUP

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新秀波磁能股份有限公司
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Superrite Electronics Co., Ltd.

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東莞速聯實業有限公司
Dong Guan Supertech Electronics Co., Ltd.
Dong Guan Superchemi Co., Ltd.
Super Chain Industrial (d.g) Co., Ltd.

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Ferrite Characterization (P//H)

Material Code 秀波材質名	Symbol (unit)		SM-1G	SM-3F	SM-3G (SM-2G)	SM-3N
Material Composition 組成			BaO 6Fe ₂ O ₃	SrO 6Fe ₂ O ₃	SrO 6Fe ₂ O ₃	SrO 6Fe ₂ O ₃
Residual flux density 殘留磁束密度	Br	(mT)	220±15 (205-235)	375±15 (360-390)	375±15 (360-390)	395±15 (380-410)
		(G)	2200±150 (2050-2350)	3750±150 (3600-3900)	3750±150 (3600-3900)	3950±150 (3800-4100)
Coercive force 保磁力	bHc	(kA/m)	159.2±15.9 (143.2-175.2)	234.8±11.9 (222.9-246.7)	254.6±15.9 (238.7-270.6)	234.8±11.9 (222.9-246.7)
		(Oe)	2000±200 (1800-2200)	2950±150 (2800-3100)	3200±200 (3000-3400)	2950±150 (2800-3100)
Coercive force 保磁力	iHc	(kA/m)	258.6±19.9 (238.7-278.5)	238.7±15.9 (222.8-254.6)	270.6±19.9 (250.6-290.5)	238.7±15.9 (222.8-254.6)
		(Oe)	3250±250 (3000-3500)	3000±200 (2800-3200)	3400±250 (3150-3650)	3000±200 (2800-3200)
Maximum energy product 最大磁能積	(BH) _{max}	(kJ/m ³)	8.9±1.6 (7.3-10.5)	25.9±2.4 (23.5-28.3)	25.9±2.4 (23.5-28.3)	28.7±2.4 (26.3-31.1)
		(MG-Oe)	1.1±0.2 (0.9-1.3)	3.25±0.3 (2.95-3.55)	3.25±0.3 (2.95-3.55)	3.6±0.3 (3.30-3.90)
Pressing Type 成型方法	P//H		Dry type (乾式)	Dry type (乾式)	Dry type (乾式)	Dry type (乾式)
Density 燒結密度	(gr/cm ³)		4.6-4.9	4.7-4.9	4.7-4.9	4.7-4.9
Tensile Strength 抗拉強度	(kgf/mm ²)		2~5	2~5	2~5	2~5
Compression Strength 抗壓強度	(kgf/mm ²)		> 70	> 70	> 70	> 70
Bending Strength 抗折強度	(kgf/mm ²)		5~9	5~9	5~9	5~9
Specific Heating 比熱	(Cal/g°C)		0.2	0.2	0.2	0.2
Thermal Expansion Coefficient C//°(1/K)(1/°C) 熱膨脹係數 ΔL/L/ ΔT	Direction of Easy Magnetization 磁化容易軸方向 P//H		12x10 ⁻⁶	15x10 ⁻⁶	15x10 ⁻⁶	15x10 ⁻⁶
Reversible permeability 透磁率	μ _{rec}		1.1~1.2	1.1~1.2	1.1~1.2	1.1~1.2
Temperature coefficient of residual flux density 可逆溫度係數	Δ Br/Br (%/°C)		-0.18	-0.18	-0.18	-0.18
	Δ Hc/Hc (%/°C)		0.2~0.5	0.2~0.5	0.2~0.5	0.2~0.5
Curie temperature 居禮溫度	Tc (°C)		450	460	460	460

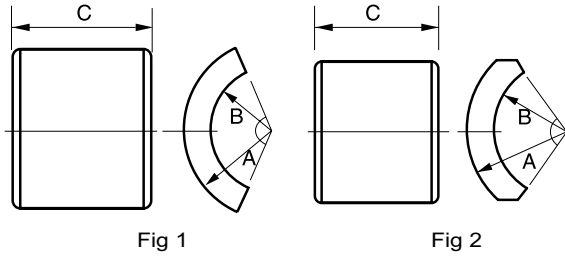
Superrite Characterization (P//H)

Material Code 秀波材質名	Symbol (unit)		SM-3GH (SM-2GH)	SM-4A	SM-5B	SM-5H
Material Composition 組成			SrO 6Fe ₂ O ₃	SrO 6Fe ₂ O ₃	SrO 6Fe ₂ O ₃	SrO 6Fe ₂ O ₃
Residual flux density 殘留磁束密度	Br	(mT)	395±15 (380~410)	387.5±12.5 (375-400)	420±10 (410-430)	405±10 (395-415)
		(G)	3950±150 (3800~4100)	3875±125 (3750-4000)	4200±100 (4100-4300)	4050±100 (3950-4150)
Coercive force 保磁力	bHc	(kA/m)	254.6±15.9 (238.7-270.6)	246.8±15 (238.7-254.7)	262.7±11.9 (250.8-274.6)	298.5±11.9 (286.6-310.4)
		(Oe)	3200±200 (3000-3400)	3100±200 (3000-3200)	3300±150 (3150-3450)	3750±150 (3600-3900)
Coercive force 保磁力	iHc	(kA/m)	270.6±19.9 (250.6-290.5)	264.7±14 (250.7-278.7)	266.7±11.9 (254.8-278.6)	318.4±11.9 (306.5-330.3)
		(Oe)	3400±250 (3150-3650)	3325±175 (3150-3500)	3350±150 (3200-3500)	4000±150 (3850-4150)
Maximum energy product 最大磁能積	(BH)max	(kJ/m ³)	28.7±2.4 (26.3-31.1)	29.0±1.3 (27.7-30.3)	33.4±1.6 (31.8-35.0)	31.0±1.6 (29.4-32.6)
		(MG-Oe)	3.6±0.3 (3.30-3.90)	3.65±0.15 (3.5-3.8)	4.2±0.2 (4.0-4.4)	3.9±0.2 (3.7-4.1)
Pressing Type 成型方法	P//H		Dry type (乾式)	Wet type (濕式)	Wet type (濕式)	Wet type (濕式)
Density 燒結密度	(gr/cm ³)		4.7-4.9	4.9-5.0	4.9-5.0	4.9-5.0
Tensile Strength 抗拉強度	(kgf/mm ²)		2~5	2~5	2~5	2~5
Compression Strength 抗壓強度	(kgf/mm ²)		> 70	> 70	> 70	> 70
Bending Strength 抗折強度	(kgf/mm ²)		5~9	5~9	5~9	5~9
Specific Heating 比熱	(Cal/g°C)		0.2	0.2	0.2	0.2
Thermal Expansion Coefficient C//°(1/K)(1/°C) 熱膨脹係數ΔL/L/ΔT	Direction of Easy Magnetization 磁化容易軸方向 P//H		15x10 ⁻⁶	15x10 ⁻⁶	15x10 ⁻⁶	15x10 ⁻⁶
Reversible permeability 透磁率	μ _{rec}		1.1~1.2	1.05~1.1	1.05~1.1	1.05~1.1
Temperature coefficient of residual flux density 可逆溫度係數	Δ Br/Br (%/°C)		-0.18	-0.18	-0.18	-0.18
	Δ Hc/Hc (%/°C)		0.2~0.5	0.2~0.5	0.2~0.5	0.2~0.5
Curie temperature 居禮溫度	T _c (°C)		460	460	460	460

Superrite Characterization (P ⊥ H)

Material Code 秀波材質名	Symbol (unit)		SM-5BK
Material Composition 組成			SrO 6Fe ₂ O ₃
Residual flux density 殘留磁束密度	Br	(mT)	340
		(G)	3400
Coercive force 保磁力	bHc	(kA/m)	190
		(Oe)	2400
Coercive force 保磁力	iHc	(kA/m)	255
		(Oe)	3200
Maximum energy product 最大磁能積	(BH)max	(kJ/m ³)	19
		(MG-Oe)	2.4
Pressing Type 成型方法	P ⊥ H		Dry type (乾式)
Density 燒結密度	(gr/cm ³)		4.7-4.8
Tensile Strength 抗拉強度	(kgf/mm ²)		—
Compression Strength 抗壓強度	(kgf/mm ²)		—
Bending Strength 抗折強度	(kgf/mm ²)		2 ~ 5
Specific Heating 比熱	(Cal/g°C)		0.2
Thermal Expansion Coefficient C/(1/K)(1/°C) 熱膨脹係數 ΔL/L/ΔT	Direction of Easy Magnetization 磁化容易軸方向 P ⊥ H		9x10 ⁻⁶
Reversible permeability 透磁率	μ _{rec}		1.1 ~ 1.2
Temperature coefficient of residual flux density 可逆溫度係數	Δ Br/Br (%/°C)		-0.18
	Δ Hc/Hc (%/°C)		0.2 ~ 0.5
Curie temperature 居禮溫度	Tc (°C)		460

Type C Magnets 等 / 異方 C 型馬達磁石



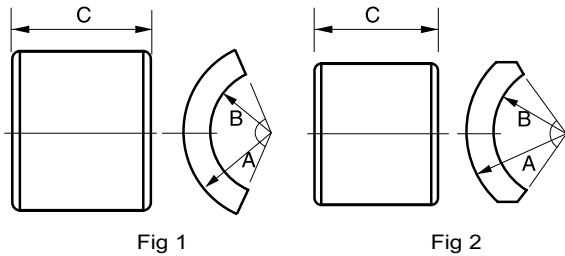
Material : ISOTROPIC

Part No.	DIMENSIONS (mm)		
	A	B	C
1000001N	9.55	6.90	12.00
1001169A	9.55	6.95	12.00
1000393J	9.60	6.80	13.00
1001311N	9.60	7.25	13.00
1000002N	9.60	7.25	14.00
1001088A	10.10	6.90	10.50
1001137N	11.40	7.75	16.60
1001309N	11.40	7.75	20.00
1001097A	11.45	7.90	20.90
1001092A	11.48	7.90	12.75
1001310N	11.50	7.90	12.80
1000007A	11.50	7.90	16.60
1001350J	13.13	8.90	14.98
1000550N	13.13	8.90	21.00
1001228J	16.88	11.90	26.00
1001331N	16.90	12.00	27.00

Material : ANISOTROPIC

Part No.	DIMENSIONS (mm)		
	A	B	C
2000543N	4.53	5.00	8.70
2001134N	7.20	4.95	11.20
2001135N	7.20	5.325	17.50
2000559N	9.15	6.60	16.20
2001226N	9.50	7.10	13.00
2001105N	9.55	6.95	12.00
2001127N	9.575	7.25	13.00

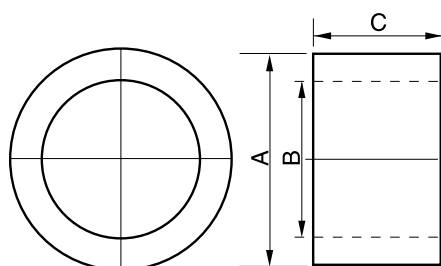
Type C Magnets 異方 C 型馬達磁石



Material : ANISOTROPIC

Part No.	DIMENSIONS (mm)		
	A	B	C
2001118N	9.575	7.25	19.00
2000917N	9.58	8.25	15.00
2000040N	9.60	7.25	13.00
2000055N	9.65	7.25	12.00
2000965N	10.50	7.80	16.60
2000574N	10.85	7.90	16.68
2001229N	11.425	8.25	16.80
2001139N	11.50	7.85	16.60
2000976N	11.50	7.90	12.80
2001123N	11.50	7.90	16.60
2001082J	11.55	8.20	17.00
2001080N	13.15	8.39	15.00
2001083N	13.15	8.90	21.00
2001128N	13.15	8.90	23.50
2000178A	13.15	9.00	15.00
2000185A	13.15	9.00	15.05
2000067A	13.15	9.00	21.00
2001095J	13.15	9.00	27.50
2000053N	13.15	9.00	30.00
2001246N	13.15	9.05	15.15
2001112N	13.50	10.5 Min	32.00
2001113N	13.75	10.00	30.50
2001148N	16.90	12.00	27.00
2001090N	16.90	12.00	37.00
2000099N	23.80	17.50	25.50
2001130N	23.80	17.50	40.00
2001183N	23.80	17.50	45.00

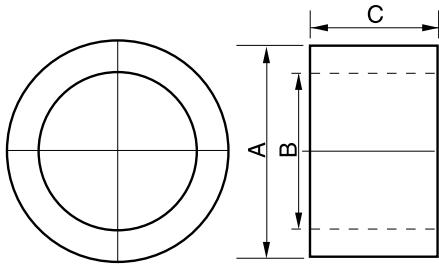
Type Ring Magnets 等方環型馬達磁石



Material : ISOTROPIC

Part No.	DIMENSIONS (mm)		
	A	B	C
1001240A	5.00	2.00	2.00
1000937N	5.30	1.76	3.00
1000194A	5.50	2.15	4.10
1001116N	5.51	2.18	4.10
1001306N	5.70	2.15	1.70
1001329A	5.80	1.80	2.00
1000036A	8.98	3.10	7.90
1001223N	10.19	6.00	8.90
1001347A	11.15	7.95	3.00
1001264N	11.98	7.40	8.95
1000313A	12.00	4.05	4.90
1001353N	12.00	7.50	8.40
1000052N	12.98	6.00	9.80
1001260N	12.98	6.60	9.40
1000137A	13.00	5.70	3.00
1001249N	13.98	9.00	8.70
1001359N	13.98	10.00	5.50
1001277N	14.98	6.20	11.65
1000356N	15.90	9.80	10.10
1001235N	15.97	9.83	10.10
1001274N	15.98	7.50	4.00
1000030N	15.98	9.00	16.40

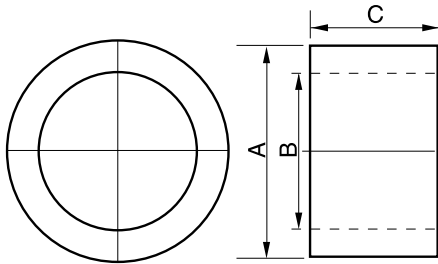
Type Ring Magnets 等方環型馬達磁石



Material : ISOTROPIC

Part No.	DIMENSIONS (mm)		
	A	B	C
1000530A	16.90	11.90	3.00
1000034N	17.98	7.00	5.95
1000963N	17.98	12.00	11.30
1001250N	17.98	14.00	5.00
1001358N	17.98	14.00	7.00
1001292N	17.98	14.00	10.00
1000967N	17.98	14.00	11.30
1001265N	18.08	12.00	12.85
1001251N	18.09	14.00	5.00
1001272N	19.58	8.00	8.00
1001297N	19.58	8.00	10.00
1000457N	21.98	18.00	18.90
1000119N	22.72	17.53	10.75
1001336A	22.95	10.05	17.00
1001227N	22.98	15.75	19.00
1000962N	22.98	16.00	11.70
1000458N	22.98	18.00	13.70
1001349N	23.00	16.60	5.35
1000924N	23.70	30.70	11.15
1000383N	23.98	18.00	11.50
1001163N	23.98	18.00	16.00
1000954N	26.18	20.50	16.00
1001353A	26.80	20.80	13.00

Type Ring Magnets 等 / 異方環型馬達磁石



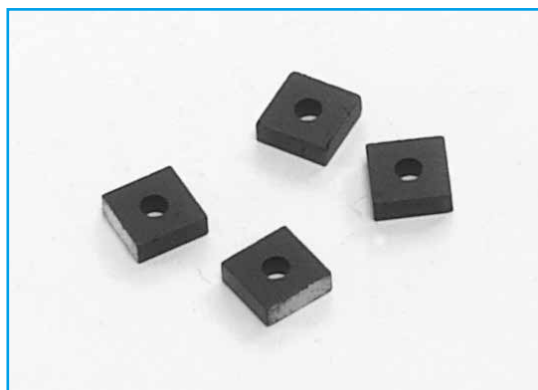
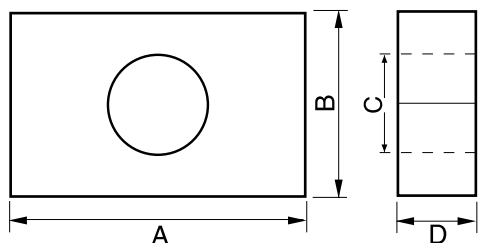
Material : ISOTROPIC

Part No.	DIMENSIONS (mm)		
	A	B	C
1001345A	26.80	20.80	16.00
1001283N	27.38	20.80	16.00
1000041N	27.75	8.50	18.20
1000053N	29.98	23.90	25.25
1001282A	30.00	10.05	8.00
1001000N	30.70	24.00	12.00
1001002N	30.76	23.65	13.00
1001361N	37.53	21.60	14.00
1001341A	45.95	35.00	17.00

Material : ANISOTROPIC

Part No.	DIMENSIONS (mm)		
	A	B	C
2001098A	12.95	5.85	3.00
2001230A	13.35	4.60	4.95
2001074A	21.525	10.00	2.95
2001053A	28.80	18.00	3.60

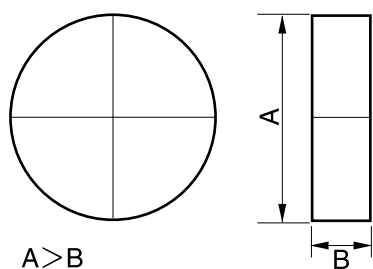
Type SH Magnets 等方性方型有孔磁石



Material : ISOTROPIC

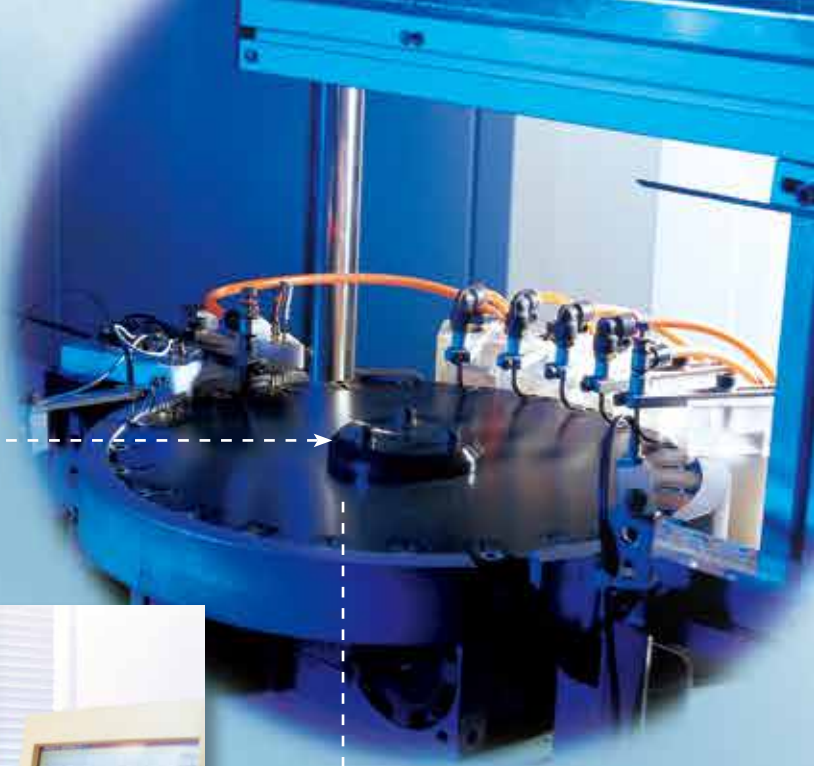
Part No.	DIMENSIONS (mm)			
	A	B	C	D
1001047A	20.00	10.00	3.50	8.00

Type O Magnets 等方性圓型無孔磁石



Material : ISOTROPIC

Part No.	DIMENSIONS (mm)	
	A	B
1001287A	2.90	1.30



Superrite®



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