Physical and Magnetic Data on Shielding Alloys

	Co-Netic AA Perfection Annealed	Co-Netic AA Stress Annealed*	Co-Netic B Stress Annealed*
Specific Gravity	8.74	8.74	8.18
Coefficient of Expansion, per °C x 10^{-6}	12.6	12.6	8.3
Tensile Strength, PSI x 10^3	64	85	80
Yield Strength, PSI x 10^3	18.5	33	27
Modulus of Elasticity, PSI x 10^6	25	30	24
Hardness, Rockwell B	50 Ref.	70 Ref.	68 Ref.
Elongation in 2 inches	27%	32%	32%
Melting Point	2650°F 1454°C	2650°F 1454°C	2600°F 1427°C
Thermal Conductivity (cal/sec/cm^2/cm/°c) at 20°	.138	.138	.037
Electrical Resistivity Micro-ohm-centimeters	55	55	48
Saturation Induction (Gauss)	8,000	After required annealing is done, magnetic properties are same as those for Perfection Annealed sheet.	15,000*
Initial Permeability	30,000		8,000*
Permeability at 40 B	75,000		12,000*
Permeability at 200 B	135,000		30,000*
Maximum Permeability	450,000		150,000*
Induction at μ max.	3,000		7,000*
Coercive Force Hc,Oersteds	.015		.05
Curie Temp.	850°F 454°C	850°F 454°C	840°F 449°C
Minimum Operating Temp.	4°K	4°K	4°K

Physical and Magnetic Data on Shielding Alloys	
Specific Gravity	7.86
Coefficient of Expansion, per °C x 10^{-6}	13.7
Tensile Strength, PSI x 10^{3}	42
Yield Strength, PSI x 10^{3}	27
Modulus of Elasticity, PSI x 10^{6}	30
Hardness, Rockwell B	50 Ref.
Elongation in 2 inches	38%
Melting Point	2790°F 1532°C
Thermal Conductivity (cal/sec/cm^{2}/cm/°c) at 20°	.118
Electrical Resistivity Micro-ohm-centimeters	11
Saturation Induction (Gauss)	21,400
Initial Permeability	200
Permeability at 40 B	300
Permeability at 200 B	500
Maximum Permeability	4,000
Induction at μ max.	8,000
Coercive Force Hc,Oersteds	1.0
Curie Temp.	1420°F 770°C
Minimum Operating Temp.	4°K

CO-NETIC B SHEET

Stress Annealed[2]-Part Numbers

Thickness		Width		Standard Lengths-Inches (mm)			
Inches	**mm**	**Inches**	**mm**	**15" (381mm)**	**30" (762mm)**	**60" (1524mm)**	**120" (3048mm)**
0.025	0,64	9	228	CBS025-9-15	CBS025-9-30	CBS025-9-60	CBS025-9-120

NETIC S3-6 SHEET

Stress Annealed[2]-Part Numbers

Thickness		Width*		Standard Lengths-Inches (mm)			
Inches	**mm**	**Inches**	**mm**	**15" (381mm)**	**30" (762mm)**	**60" (1524mm)**	**120" (3048mm)**
0.014	0,36	30	762	NS014-30-15	NS014-30-30	NS014-30-60	NS014-30-120
0.020	0,51	30	762	NS020-30-15	NS020-30-30	NS020-30-60	NS020-30-120
0.025	0,64	30	762	NS025-30-15	NS025-30-30	NS025-30-60	NS025-30-120
0.030	0,76	30	762	NS030-30-15	NS030-30-30	NS030-30-60	NS030-30-120
0.050	1,27	30	762	NS050-30-15	NS050-30-30	NS050-30-60	NS050-30-120
0.062	1,58	30	762	NS062-30-15	NS062-30-30	NS062-30-60	NS062-30-120
0.095	2,41	30	762	NS095-30-15	NS095-30-30	NS095-30-60	NS095-30-120

Fully hydrogen annealed. No further annealing necessary if drawing and heliarc welding are avoided (Not suitable for deep draw, spinning or hydroform fabrication).

[2] Stress annealed for ease of fabrication. Must be final hydrogen annealed for maximum attenuation.

Ordering CO-NETIC and NETIC Sheet

CO-NETIC AA SHEET

Perfection Annealed[1]-Part Numbers

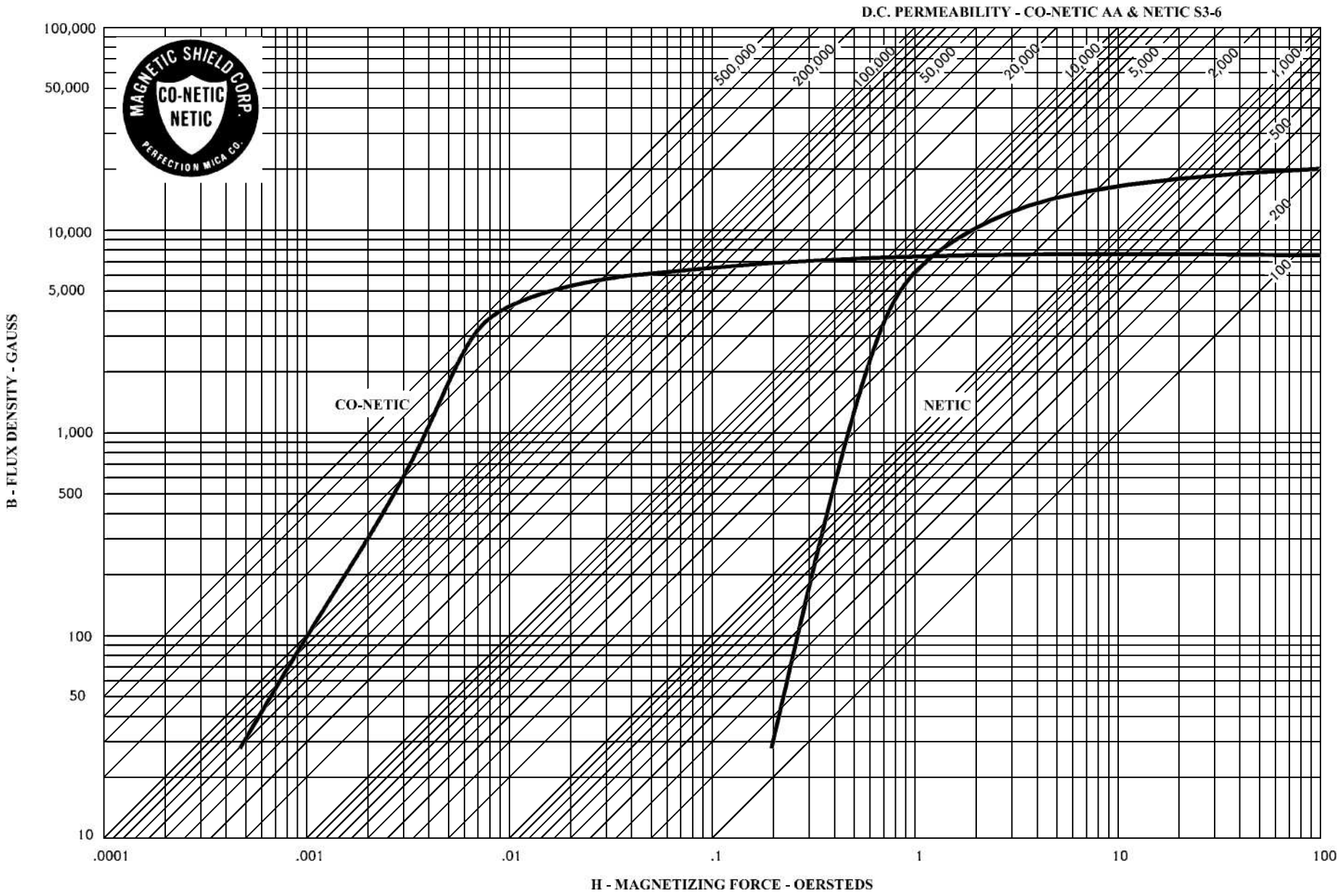
Thickness		Width		Standard Lengths-Inches (mm)		
Inches	**mm**	**Inches**	**mm**	**14" (356mm)**	**29" (737mm)**	**59" (1499mm)**
0.014	0,36	30	762	CP014-30-14	CP014-30-29	CP014-30-59
0.020	0,51	30	762	CP020-30-14	CP020-30-29	CP020-30-59
0.025	0,64	30	762	CP025-30-14	CP025-30-29	CP025-30-59
0.030	0,76	30	762	CP030-30-14	CP030-30-29	CP030-30-59
0.040	1,02	30	762	CP040-30-14	CP040-30-29	CP040-30-59
0.050	1,27	30	762	CP050-30-14	CP050-30-29	CP050-30-59
0.062	1,58	30	762	CP062-30-14	CP062-30-29	CP062-30-59

CO-NETIC AA SHEET

Stress Annealed[2]-Part Numbers

Thickness		Width*		Standard Lengths-Inches (mm)			
Inches	**mm**	**Inches**	**mm**	**15" (381mm)**	**30" (762mm)**	**60" (1524mm)**	**120" (3048mm)**
0.014	0,36	30	762	CS014-30-15	CS014-30-30	CS014-30-60	CS014-30-120
0.020	0,51	30	762	CS020-30-15	CS020-30-30	CS020-30-60	CS020-30-120
0.025	0,64	30	762	CS025-30-15	CS025-30-30	CS025-30-60	CS025-30-120
0.030	0,76	30	762	CS030-30-15	CS030-30-30	CS030-30-60	CS030-30-120
0.040	1,02	30	762	CS040-30-15	CS040-30-30	CS040-30-60	CS040-30-120
0.050	1,27	30	762	CS050-30-15	CS050-30-30	CS050-30-60	CS050-30-120
0.062	1,58	30	762	CS062-30-15	CS062-30-30	CS062-30-60	CS062-30-120

** Note: 0.014 through 0.062 thicknesses also available in 24" inch wide sheets - consult factory*


D.C. PERMEABILITY - CO-NETIC AA & NETIC S3-6
MAGNETIC SHIELD CORP.
CO-NETIC
NETIC
PERFECTION MICA CO.
500,000
200,000
100,000
50,000
20,000
10,000
5,000
2,000
1,000
500
200
100
CO-NETIC
NETIC
100,000
50,000
10,000
5,000
1,000
500
100
50
10
B - FLUX DENSITY - GAUSS
.0001
.001
.01
.1
1
10
100
H - MAGNETIZING FORCE - OERSTEDS