

WELCOME



Dear Customers

Thank you for your confidence in Adams Magnetic Products. We appreciate the opportunities that you give us and look forward to delivering products and services that exceed your expectations. Our job quite simply is to have the products you want, delivered to you on time, and to make your experience with our sales team as enjoyable as we can.

For more than 65 years, we have delivered. How do we know? You've told us! As part of our ongoing commitment to improve our service to you, we have requested customer feedback on our performance, and are proud to report that it has been overwhelmingly positive. It's imperative that we are performing not only how we feel we should, but more importantly how you feel we should.

As you consider working with us in the future, please keep our commitment to you in mind — to provide you with products and services that we would expect if we were in your shoes.

We look forward to working with you this year and for many years to come.

Sincerely,

A handwritten signature in black ink, appearing to read "Bob Davis". The signature is fluid and cursive, written over a light blue background.

President

TABLE OF CONTENTS



1 MAGNET BASICS

- 1 What Are *Pounds Pull*?
- 2 Magnet Types

3 STRIP

- 6 Standard Energy
- 7 High Energy
- 8 Label Magnets

9 SHEET

- 11 Fabrication & Standard Sheet
- 12 MegaMAG® Wide Format Sheet

13 MAGBOND® MAGNET MEDIA SYSTEM

- 14 How it works
- 15 Magnet Base, Standard, HE & Double-sided
- 16 Magnet Receptive Sheet

17 ASSEMBLIES

- 19 Standard Round Base
- 20 Neo Round Base
- 21 Channels
- 22 Sandwiches
- 22 Mounting Hardware
- 23 Latches
- 24 Custom Assemblies

25 HARD MAGNETS

- 27 Neodymium Magnets
- 28 TabMAG® Neo with Adhesive
- 29 Samarium Cobalt
- 29 Alnico
- 30 Ceramic

31 SUPPORT

- 33 Methods of Magnetization
- 34 Glossary of Terms
- 35 Chart of Material Properties
- 36 Quality Certifications
- 37 Other Products
- 39 The Extra Mile



THE PULLING QUESTION: HOW MUCH WEIGHT WILL A MAGNET HOLD?

As you read through our catalog, you'll see a measurement called Pounds Pull listed for most items, but what does that really mean?

Pounds pull (also called breakaway force or pull strength) is the force required to vertically detach a magnet from ferrous material. We measure it in pounds, using very specific conditions to create uniformity. If your application conditions are different, you will get different results.

HERE'S HOW WE MEASURE POUNDS PULL:

We use a $\frac{3}{4}$ " thick, completely flat, solid steel plate. It is larger than the magnet being tested, so the magnet makes complete contact with the plate. A pull force gauge measures the force required to pull the magnet vertically away from the steel plate.

WHAT IF YOU'RE NOT USING THE MAGNET IN A VERTICAL APPLICATION?

If you're using a magnet in vertical placement, then shear force comes into play. While the magnetic force pulls the magnet horizontally towards the steel surface, gravity tries to pull the magnet down, and the friction between the magnet and the steel prevents it from sliding. Why don't we publish shear strength numbers? We can't because the friction coefficient varies dramatically depending on the two materials and any surface inconsistencies. Paint, rust, even fingerprints can make a difference!

WHAT ABOUT GAPS, DISTANCES CREATED BETWEEN THE MAGNET AND THE STEEL?

The distance between your magnet and the steel substrate to which it is trying to attract can make an almost unbelievable difference in pull strength. Although this distance is commonly called an air gap, anything that comes between the magnet material and its ferrous mate will cause a variance in strength, including paint, coatings, paper, even grease. Uneven surface areas cause gaps too, such as rust.

SO WHAT'S THE BEST SOLUTION?

Talk to us, get our recommendation, and then try it out! In most cases, we'll send samples for prototypes at no charge.



MAGNET TYPES

MAGNET ASSEMBLIES

Adams assemblies incorporate magnet and non-magnet materials, usually magnetizing them together to create a stronger magnetic circuit. The non-magnet materials typically incorporate mounting mechanisms for holding applications and also protect the magnet material from damage during use. Our standard assemblies are up to 32 times stronger than individual ceramic magnets, and we have made neodymium assemblies hold over 300 pounds each!

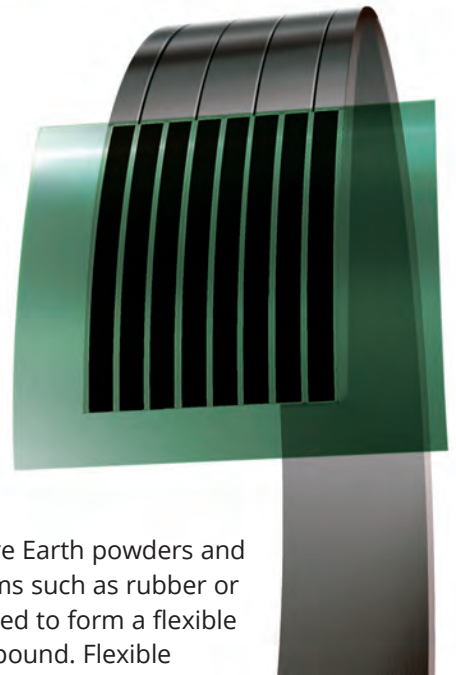
RARE EARTH MAGNETS

Among commercial magnet materials, the rare earth Neodymium Iron Boron (NdFeB) and Samarium Cobalt (SmCo) magnets are the most powerful in the marketplace. These Rare Earth materials possess the highest Br, relatively high Hc and high BHmax. In many cases, NdFeB is a more economical alternative to SmCo, but it's only suitable for certain applications due to its temperature sensitivity and susceptibility to oxidation. Rare Earth magnets have an approximate energy product range of 10-53 MGOe.



ALNICO

Temperature stability is one of the key benefits of Alnico magnets, which have been a mainstay of the industry since the 1930s. Composed of aluminum, nickel, and cobalt, and available in both cast and sintered forms, Alnico may withstand temperatures over 500°C with no permanent magnetic loss. Additional benefits include ease of demagnetization and high corrosion resistance. Alnico magnets exhibit high Br, but low Hc. Their energy product range is approximately 1.4-11 MGOe.



FERRITE (CERAMIC)

Ferrite is the lowest cost magnet material currently available, which may be why sintered ferrite magnets are so commonly found in everyday consumer applications. Many automotive small motor applications are sintered ferrite magnets. Composed of Strontium Ferrite, these hard, brittle materials stand up well to demagnetization except in extreme cold environments. Ferrite has an approximate energy product range of 1.1-4.5 MGOe.

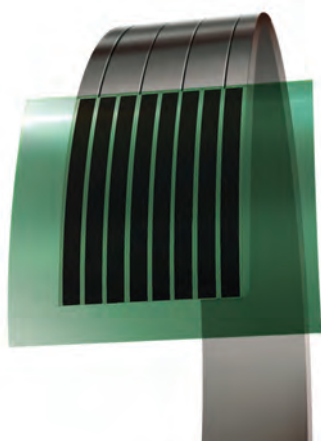


FLEXIBLE

Ferrite or Rare Earth powders and binder systems such as rubber or plastic are used to form a flexible magnet compound. Flexible magnets can be bent, twisted and coiled as needed without losing their magnetization. Ferrite-based flexible magnets are available from 0.6-1.8 MGOe, while those with Rare Earth-based materials can reach 6 MGOe. Grading varies by composition.

BENEFITS OF USING FLEXIBLE MAGNETS

The easy manipulation of flexible magnets permits design innovations and automated manufacturing techniques not possible with rigid or brittle materials. Flexible magnet materials can be bent, twisted, coiled, slit, punched, and otherwise machined into almost any shape without loss of magnetic energy.



MAGNET STRIP

STRENGTH AND FLEXIBILITY

Thickness typically drives the strength of flexible magnets, but maximum surface area adhesion also allows extra holding power and sheer strength. Adams standard energy magnetic strip generally holds a minimum of one pound per square inch of (.060" thick) magnet, and will adhere and remain flexible at temperatures from -15°F to as high as 160°F. Our high energy strip will hold even more. And our flexible strip magnet resists demagnetization and will not chip, crack or shatter when cut, drilled or flexed.

WHY CHOOSE ADAMS FOR FLEXIBLE MAGNETS?

Adams can create flexible magnets in custom widths, thicknesses and lengths in one of our two fabrication facilities in Chicago, IL and Irvine, CA. Our flexible magnet is available either plain or with a range of adhesive options including foam, rubber, acrylic, and double-faced. We also offer cutting, scoring, die cutting, and custom magnetization.

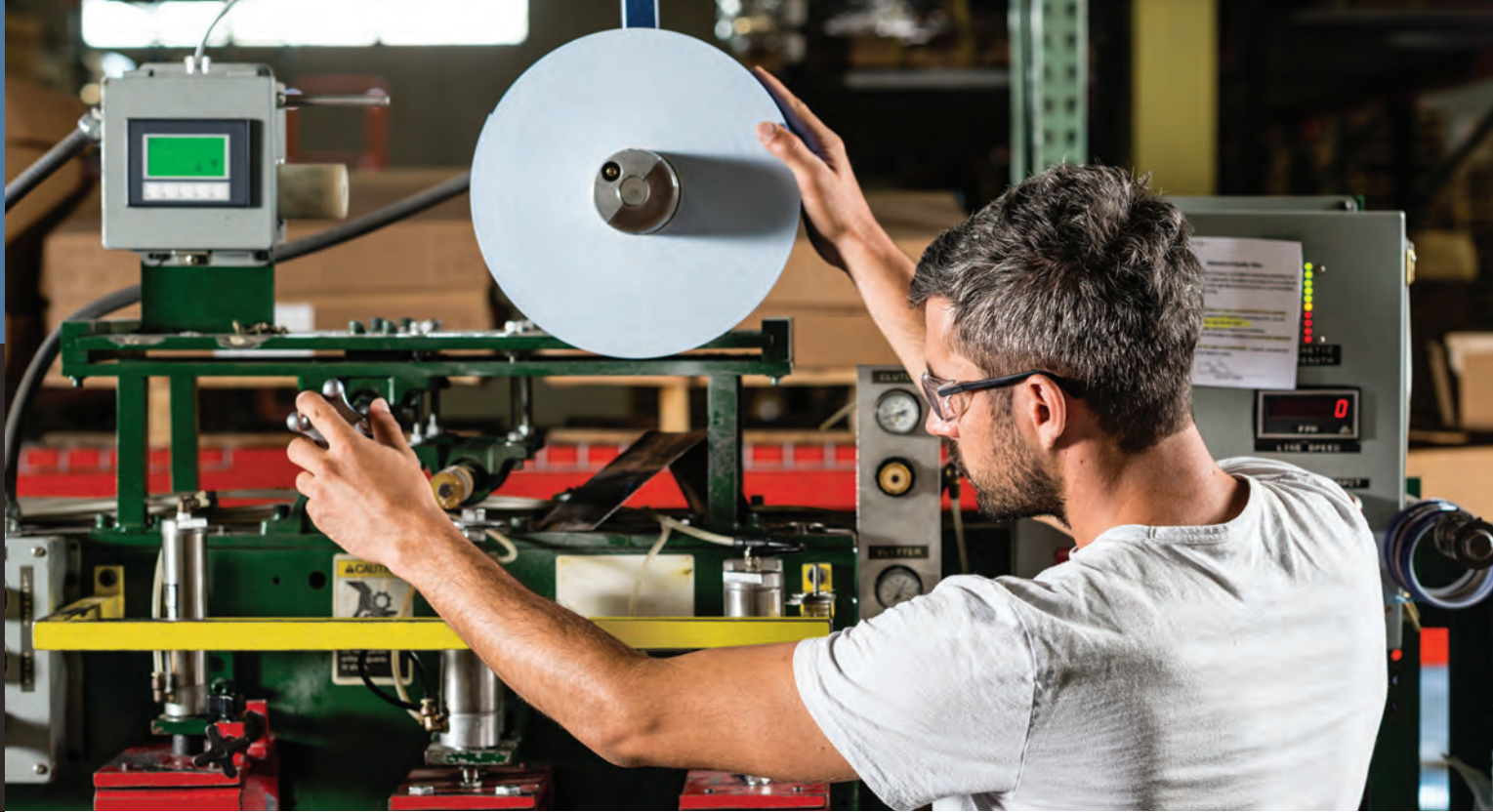
OPTIONS - WHATEVER YOU NEED, JUST ASK!

We offer several options for strip and sheet orders. Just to name a few:

- Selection of paper, vinyl, and polypropylene laminates to fit your printing needs
- Rubber (Indoor and Outdoor), acrylic and foam adhesives
- Lamination on both sides
- Magnetization on both sides
- Not magnetized
- Custom magnetization such as matched pole
- Custom pole spacing
- Scored strip rolls from 0.25" X 0.25" on rolls up to 1500'
- Custom packaging

MADE TO ORDER!

Our capabilities to customize magnet strip are unmatched, and we're equipped to do it FAST. Just let us know what you need and when you need it.



SIZE PARAMETERS

If you need a larger size, keep turning the pages until you get to our magnet sheet! If you need a smaller size, call us and we'll help you work something out.

STANDARD TOLERANCES

Unless otherwise specified, the following tolerances apply to all our magnetic strip products:

- Thickness: +/- 0.003"
- Width: +/- 0.030"
- Custom Lengths: +/-0.060" or 1%, whichever is greater

MAGNETIZATION OPTIONS

A standard flexible strip magnet is magnetized with multiple poles along the length of the face, creating concentrated strength on the face of the magnet. However, we are able to offer these other magnetization options: conventional through width, conventional through thickness, and two poles on one face. Matched pole magnetization is also available. Learn more about magnetization options on page 33.

ADHESIVES - THE OTHER HALF OF THE ATTRACTION

Selecting the right adhesive is critical to product function, and is dependent on the type of material you apply our magnets to, and under what conditions they will be used. We have several options to work for indoor applications, outdoor applications, or when more tack is required. We can supply our magnets with almost any type of adhesive available, including foam and permanent or removable adhesive.

Smallest Width	0.25"
Largest Width	3.0"
Shortest Length	0.25"
Longest Length	1500 Feet
Smallest Piece size	0.25" X 0.25"
Largest Roll Size	3" X 1500 Feet

STANDARD STRIP**.030 Thick- 200 Ft Rolls**

Width	Item# Plain	Indoor Adhesive	Outdoor Adhesive	Roll Wt (Lbs)	Pounds Pull
0.50	27A0004	27A0001	27A0003	6	4.5
0.75	27A0007	27A0005	27A0017	8	6.5
1.00	27A0009	27A0008	27A0023	11	9.0
1.50	27A0011	27A0010	27A0100	14	13.5
2.00	27A0014	27A0012	27A0013	20	18.0
3.00	27A0036	27A0052	27A0104	28	27.0

.060 Thick- 100 Ft Rolls

Width	Item# Plain	Indoor Adhesive	Outdoor Adhesive	Roll Wt (Lbs)	Pounds Pull
0.25	27B0005	27B0002	27B0004	3	3
0.50	27B0015	27B0008	27B0124	5	6
0.75	27B0022	27B0016	27B0019	8	9
1.00	27B0028	27B0023	27B0025	10	12
1.50	27B0035	27B0029	27B0032	14	18
2.00	27B0041	27B0036	27B0038	20	24
3.00	27B0050	27B0091	27B0103	28	36

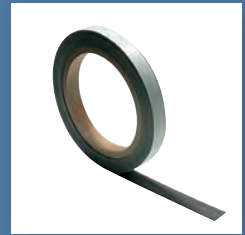
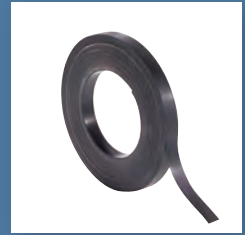
.085 Thick-150 Ft Rolls

Width	Item# Plain	Indoor Adhesive	Outdoor Adhesive	Roll Wt (Lbs)	Pounds Pull
0.50	27C0002	27C0001	27C0009	10	7.5
0.75	27C0005	27C0010	27C0011	14	11.0
1.00	27C0004	27C0003	27C0007	19	15.0
1.50	27C0012	27C0013	27C0014	29	22.5
2.00	27C0015	27C0008	27C0016	39	30.0
3.00	27C0017	27C0018	27C0019	59	45.0

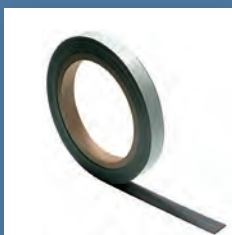
.120 Thick-100 Ft Rolls

Width	Item# Plain	Indoor Adhesive	Outdoor Adhesive	Roll Wt (Lbs)	Pounds Pull
0.50	27D0007	27D0001	27D0021	9	7.0
0.75	27D0038	27D0028	27D0046	14	10.5
1.00	27D0012	27D0008	27D0040	18	14.0
1.50	27D0049	27D0034	27D0050	28	21.0
2.00	27D0041	27D0035	27D0052	37	28.0
3.00	27D0036	27D0039	27D0055	55	42.0

Dimensions are in inches unless otherwise noted. Please contact us if you want us to slit, cut or score to your final size. Pounds pull are approximate, depending on the thickness of the receiving metal substrate.

**Thickness Comparison**

.030"	—
.060"	■
.085"	■
.120"	■



HIGH ENERGY STRIP

Comparison of Pounds Pull Per Foot, .060 thick strip:

Width	Std Energy	HE 1.4
0.50	6.00	8.50
0.75	9.00	12.75
1.00	12.00	17.00
1.50	18.00	25.50
2.00	24.00	34.00
3.00	36.00	51.00

1.4 Energy Level .060 Thick 100 Ft Rolls

Width	.060 Plain	.060 Adhesive	Roll Wt. (Lbs)	Pounds Pull
0.50	23A0046	23A0048	5	8.50
0.75	23A0049	23A0051	8	12.75
1.00	23A0052	23A0054	10	17.00
1.50	23A0055	23A0057	14	25.50
2.00	23A0058	23A0060	20	34.00

1.4 Energy Level .125 Thick 100 Ft Rolls

Width	.125 Plain	.125 Adhesive	Roll Wt. (Lbs)	Pounds Pull
0.50	23C3046	23C3048	9	9.50
0.75	23C3049	23C3051	14	14.25
1.00	23C3056	23C3054	18	19.00
1.50	23C3055	23C3057	28	28.50
2.00	23C3058	23C3060	37	38.00

Dimensions are in inches unless otherwise noted. Adhesive listed is outdoor grade. Many other sizes, shapes and magnetization types are available in high energy flexible material.

MAGNETIZATION AND STRENGTH

Adams supplies high energy flexible magnets in energy levels 1.0 through 1.4, in strip or die cut shapes. High energy flexible magnets can be magnetized through the thickness in several configurations. Ask your salesperson the best method for your application. The holding strength of these magnets starts at 16 ounces per square inch at energy level 1.0 and increases with higher energy levels.

DESIGN AND HANDLING CONSIDERATIONS

High energy flexible magnets don't chip, crack or shatter and provide an inexpensive solution for your light duty holding applications. These magnets can be easily fabricated to your exact size and shape requirements, with tight tolerances. Their maximum operating temperature is 175°F.

ADDED VALUE SERVICES

In addition to fabricating this material to your exact size and shape, Adams can apply adhesive or vinyl to one side upon request. We can also package them in individual bags or other package types. Please let your salesperson know your application to assist with design and strength.

MAGNETS FOR LABELING

.060 Cardholder Magnet

Width	Length	Item
0.50	50 Ft	28HPC2050
1.00	50 Ft	28HPC2550
2.00	50 Ft	28HPC7501
3.00	50 Ft	28HPC9600

Cardholder Dimensions are nominal. Please ask us if you need a specific size.

.030 Write-On/Wipe-Off Dry-Erase Flexible Strip and Sheet

Width	Length	Item
1.0	100 Ft	27A0025
2.0	100 Ft	27A0026
3.0	100 Ft	27A0027
24.0	50 Ft	22D0068

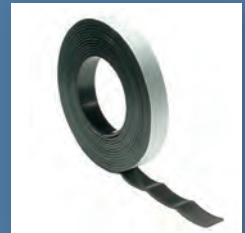
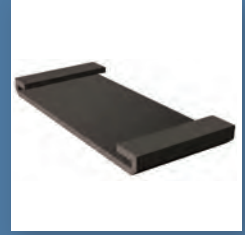
Pre-Cut Label Blanks - No Adhesive

Size	Item Cut	Item Scored
.060 X 1.00 X 3.00	28BPC5300	28BPS5300
.060 X 1.00 X 3.50	28BPC5350	28BPS5350
.060 X 1.00 X 4.00	28BPC5400	28BPS5400

Pre-Cut Label Blanks - Indoor Adhesive

Size	Item Cut	Item Scored
.060 X 1.00 X 3.00	28BNC5300	28BNS5300
.060 X 1.00 X 3.50	28BNC5350	28BNS5350
.060 X 1.00 X 4.00	28BNC5400	28BNS5400

Dimensions are in inches unless otherwise specified. Other sizes are available upon request.



CUSTOM LABELS

We can apply your labels to our magnet.
Just ask!







SHEET

MAGNETIZATION AND STRENGTH

Adams magnetic sheet uses multi-pole magnetization pattern for maximum holding power of up to 144 pounds per square foot. Standard grade materials are significantly stronger on one side and can have adhesives and vinyl applied to the weak side. Double magnetization is available by custom order, which will give both sides similar pull strength.

Strength Measured in Pounds of Pull

Magnet Thickness	Approximate Pounds Pull per SF
.012	30
.015	40
.020	60
.030	85
.060	144

Standard Tolerances

Unless otherwise specified, the following tolerances apply:

Thickness	+/- 0.003"
Width	+/- 0.060"
Custom Lengths	1% or +/- 0.125" whichever is greater

MAGNET SHEET FABRICATION

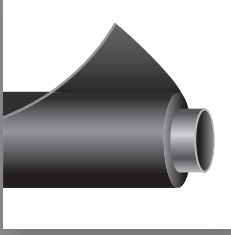
Adams can fabricate magnet sheet to your final size specifications in house, usually within three to five business days. For specific information on how many finished pieces yield from a roll, please visit our website and look up our sheet calculator tool.

Size Parameters for Non-Die Cut Magnets

Smallest Width	2.0"
Largest Width	48.0"
Shortest Length	2.0"
Longest Length	400 Feet
Smallest Piece size	2.0" X 2.0"
Largest Roll Size	48" by up to 400 Feet or 24" by up to 600 Feet

CUSTOM DIE-CUT MAGNETS

We can die cut magnet sheet to virtually any shape you can imagine, in thicknesses ranging from .010 (.17 mm) to .060" (1.52 mm). Plain magnet, sheet with adhesive, or colored vinyl may be applied prior to die-cutting. We also offer paper laminates.



STANDARD ENERGY 24" SHEET

100 Sf Rolls by Thickness (24 inches wide by 50 Ft long)

Laminate	.015 Thick Item	.020 Item	.030 Item	.060 Item
Plain (no laminate)	22A0001	22B0003	22D0002	22E0002
White Matte Vinyl	22A0007	22B0014	22D0018	22E0011
Indoor Adhesive	22A0003	22B0006	22D0005	22E0003
Outdoor Adhesive	22A0015	22B0008	22D0007	22E0004

HIGH ENERGY 24" MAGNET SHEET

100 Sf Rolls by Thickness (24 inches wide by 50 Ft long)

Item	Thickness	Laminate
22N0108	.020	Adhesive
22N0103	.060	Acrylic Adhesive on Weak Side

DOUBLE-SIDED MAGNET SHEET

100 Sf Rolls by Thickness (24 inches wide by 50 Ft long)

Item	Thickness	Laminate
22KHE01	.040	None / Plain

Dimensions are in inches unless otherwise specified. Other sizes are available upon request.

Approximate Shipping Weight in Pounds

Thickness	50 SF	100 SF	200 SF
.015	15	30	60
.020	24	48	96
.030	31	63	126
.060	62	126	N/A



STANDARD ENERGY MEGAMAG® WIDE FORMAT SHEET

40" Wide by 50' Long Rolls on 3" Cores

Laminate	.020 Thick Item	.030 Thick Item
Plain (no laminate)	22BW004	22DW008
White Matte Vinyl	22BW001	22DW006
Adhesive	22BW002	22DW007

48" Wide by 50' Long Rolls on 3" Cores

Laminate	.020 Thick Item	.030 Thick Item
Plain (no laminate)	22BW007	22DW012
White Matte Vinyl	22BW009	22DW013
Adhesive	22BW008	22DW014

COMMON APPLICATIONS

Large Format Graphics
Interchangeable Graphics
Magnet Wall Systems
Printed Premiums
Billboards
Control Charts

HIGH ENERGY MEGAMAG® WIDE FORMAT SHEET

40" Wide by 50' Long Rolls on 3" Cores

Laminate	.020 Thick Item	.030 Thick Item
White Matte Vinyl	22BWH01	22DWH06

48" Wide by 50' Long Rolls on 3" Cores

Laminate	.020 Thick Item	.030 Thick Item
White Matte Vinyl	22BWH09	22DWH13

Common traits: All rolls are 50 feet long. Core size is 3"



ADHESIVE

Our adhesives normally require 12 to 24 hours to meet maximum bond strength. The hold in place tack is immediate, but full hold strength requires chemical cure time, like with most other adhesives.

BACKSIDE LAMINATE

A high-quality back coating protects from blocking, providing anti-stick and weatherproof performance.

PRINTABILITY OF PVC TOPSIDE LAMINATE

Adams provides printing surface lamination in white matte, waterproof PVC (polyvinyl chloride). It is strongly recommended to test the material with your printer and ink system.

The material is suitable for:

- Digital inkjet printing
- Solvent, UV Cured Screen Printing
- Solvent ink
- Eco-solvent
- UV curable ink

30%
OFF

COOL
DEALS





PERFECT FOR

In-Store Graphics
Menu Boards
Museum & Educational
Displays
Control Charts
The Possibilities
are Endless



MAGBOND® MAGNET MEDIA SYSTEM

USE MAGBOND® TO CREATE LARGE FORMAT GRAPHICS AND POP DISPLAYS

Up to 60" of seamless message – held up by magnets – for magnetic POP displays that are easy to install and update. MAGbond® Magnetic Receptive Sheets are ultra-thin, rubber-based ferrous sheets supplied in rolls or cut to custom sheet sizes. MAGbond® is available in White Art Paper, Canvas, and PET lamination. Our sheets can work in combination with most flexible magnetic sheet offerings and existing magnet display systems.

HOW MAGBOND® WORKS

- 1. Prep your wall or solid surface area** — For best results, walls or surface areas need to be smooth, dry and clean of dirt.
- 2. Choose your base** — For surfaces not painted with magnetic paint, our self-adhesive magnetic sheeting is the base for the MAGbond® Magnet Media System. You can choose from standard energy or high energy sheets depending on how many MAGbond® magnetic receptive sheets you will be layering. Choose our double sided high energy magnet sheet if the walls have been painted with magnetic paint.
- 3. Choose your print media** — The MAGbond® magnetic receptive sheet comes in 50", 54" or 60" widths depending on your choice of our white paper, PET laminate or canvas sheets. Engineered to be ultra-low profile, MAGbond® sheets deliver the seamless appearance of a single layer, photo-quality or fine art print.
- 4. Install your graphics with ease** — no expensive installers needed. Just unroll your graphic over top of the magnet base.



MAGBOND® MAGNET MEDIA SYSTEM BASE COMPONENTS

MAGBOND® MAGNETIC RECEPTIVE PAINT

Turn any wall into a magnetic receptive surface. Our latex paint contains finely ground metal powder so any surface can hold magnets or magnetic receptive sheets. MAGbond® Magnetic Receptive Paint is easy to apply, dries quickly and cleans up with soap and water. Coverage is 80 square feet per gallon.

Item	Description	Size
22MP003	MAGBond® Magnetic Receptive Paint-Black	1 Gallon Can



MAGNET BASE

Adams flexible magnet is the base for the MAGbond® Magnet Media System. Our self-adhesive, or double sided magnetic sheeting material is applied to walls or similar surface only once during initial installation. Adams offers standard energy or high energy magnet material depending on how many layers of MAGbond® will be applied and if walls have been painted with magnetic paint.

Display Attached to	Recommended Magnet	Description
Hard surfaces (where magnet affixed with adhesive)	22D0005 – Standard Energy Magnetized 1/s	.030 x 24.375" x 50' w/adh
	22DWD14 – Standard Energy Magnetized 1/s	.030 x 48" x 50' w/adh
	22N0108 – High Energy Magnetized 1/s	.020 x 24.375" x 50' w/adh 1.4MG0e
Directly to MAGbond® painted wall or to metal surface	22KHE01 – High Energy Magnetized 2/s	.040 x 24.375" x 50' plain with protective backcoat, energy level 1.4MG0e

MAGBOND® MAGNETIC RECEPTIVE SHEETING

MAGbond® magnet receptive sheets are made by coating high quality, white matte PET film with micro-iron particles. They are engineered to be ultra-low profile for a seamless appearance of a single layer, photo or fine art quality print.

- White Matte PET *
- Compatible with UV, Solvent and Latex ink systems
- 100 Foot Rolls – other lengths available, or cut to size

*Other laminations available upon request, such as paper, PP, canvas. Just ask!



Item	Thickness (mil)	Width (inches)
22ISG1050	10	50
22ISG1054	10	54
22ISG1060	10	60
22ISG1250	12	50
22ISG1254	12	54
22ISG1260	12	60

STOCK AND CONVERTING

Adams stocks MAGbond® in Illinois and California, and can convert rolls to most sheet sizes quickly. Learn more at AdamsMagnetic.com/mmm





JUST ABOUT ANY SHAPE OR SIZE

Magnet assemblies consist of one or more magnets, and other components, such as steel, that generally affect the functioning of the magnet. Adams supplies magnetic assemblies in three main styles: round base, channel and sandwich. We can also make custom assemblies in just about any shape or size.



COMMON APPLICATIONS

- Antenna mounts
- Vehicle flag holders
- Sign and banner holders
- Channel letter guides
- Money clips
- POP display components
- Work lamp and emergency light bases

ASSEMBLIES

HISTORY OF QUALITY

Adams Magnetic Products has been designing and manufacturing magnetic assemblies since 1950. Now, we have assembly and manufacturing facilities in Illinois, California and China to support the high demand for this popular product line.

MANUFACTURED FOR STRENGTH AND VERSATILITY

Adams manufactures low cost, high strength magnetic assemblies. We construct them using powerful magnet materials encased in plated or powder-coated steel cups, channels or plates. The magnets are magnetized together with the casing to create a holding force that is up to 32 times stronger than an individual ceramic magnet.

HOW MUCH WILL THEY HOLD?

Pull strength is measured on a flat steel plate 3/4 inch thick. If your steel is thinner, coated or the surface is rough or rusty, the pull may vary. We recommend that you obtain a sample for testing in your specific application.

VERSATILE

We can supply assemblies with versatile mounting holes making it easy to insert a bolt, hook or clip. Our assemblies are ideal for positioning signs, displays, fixtures or anything else your business requires.

LARGE SELECTION OR CUSTOM APPLICATIONS

We keep hundreds of thousands of standard assembly magnets in stock. We also make custom assemblies to serve any new application you may need.



STANDARD ROUND BASES WITH CHROME PLATING

OD	Cup Hole	Magnet Hole	Height	Pounds Pull	Stock	Item
1.215	0.156	0.255	0.190	8	RB-20	64A0004
1.415	0.192	0.375	0.260	15	RB-40	64B0006
2.030	0.192	0.870	0.300	35	RB-50	64C0022
2.030	0.192	0.850	0.343	40	RB-51	64D0005
2.375	0.270	0.800	0.350	50	RB-60	64E0001
2.625	0.280	1.000	0.370	80	RB-70	64F0002
2.910	0.270	1.000	0.370	85	RB-75	64G0001
3.200	0.280	1.250	0.415	110	RB-80	64H0004
3.870	0.380	1.280	0.510	120	RB-85	64I0007
4.900	0.500	1.750	0.500	210	RB-90	64J0001

ROUND BASES WITH HOOKS

OD	Height of Base	Pounds Pull	Item/Nickel
0.984	0.280	9	64PN0025
1.250	0.275	18	64PN0032
1.580	0.315	28	64PN0040
1.970	0.394	49	64PN0050
2.480	0.551	78	64PN0063

ROUND BASES WITH PEM NUTS

OD	Height of Base	Pounds Pull	Item/Nickel
0.984	0.275	9	64PNN025
1.25	0.280	18	64PNN032
1.58	0.315	28	64PNN040
1.97	0.394	49	64PNN050
2.48	0.551	78	64PNN063



Dimensions are in inches. Pull figures are maximum values; these will be achieved with a flat ground steel plate of adequate thickness where contact faces are clean. Other sizes and finishes are available.

NEO ROUND BASES: NICKEL COATED WITH PROTECTIVE COVERS

OD	Cup Hole	Height	Pounds Pull	Stock	Item
1.209	0.126	0.185	40	RB-20	64ANC12
1.425	0.192	0.272	65	RB-40	64BNC06
2.035	0.193	0.299	90	RB-50	64CNC05
2.375	0.270	0.350	110	RB-60	64ENC01
2.630	0.280	0.375	140	RB-70	64FNC02
3.200	0.280	0.425	195	RB-80	64HNC04
4.900	0.500	0.500	300	RB-90	64JNC09

NEO ROUND BASES: RUBBER COATED

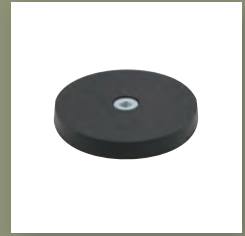
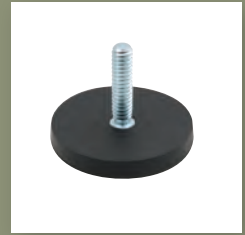
Item	Assembly Type	OD	Cup Ht	Assembly Ht	Thread	Pounds Pull
64RBM045	Male Stud	1.693	0.236	1.236	1/4-20	20
64RBM070	Male Stud	2.598	0.315	1.312	1/4-20	32
64RBM080	Male Stud	3.500	0.326	1.325	1/4-20	105
64RBF045	Female Standoff	1.693	0.236	0.236	M4	20
64RBF070	Female Standoff	2.570	0.312	0.312	M5	32
64RBF080	Female Standoff	3.500	0.326	0.326	M6	105

NEO ROUND BASES: MINIATURE SIZES

Item	Assembly Type	OD	Cup Ht	Assembly Ht	Thread	Pounds Pull
64AN000	Male Stud	0.625	0.195	0.511	M4	12
64AN001	Male Stud	0.977	0.314	0.664	M6	48
64AN016	Female Stud	0.629	0.196	0.511	M4	12
64AN025	Female Stud	0.977	0.314	0.550	M4	48
64ANH16	Threaded Hook	0.629	0.180	0.450	M4	12
64ANH25	Threaded Hook	0.977	0.314	0.665	M4	48

Item	Assembly Type	OD	Cup ID	Magnet ID	Cup Ht	Pounds Pull
64ANC16	Counter Sunk Hole	0.625	0.138	N/A	0.196	9
64ANC32	Counter Sunk Hole	1.260	0.217	N/A	0.315	55
64ANC20	Counter Bore Hole	0.781	0.176	0.315	0.270	13
64ANC25	Counter Bore Hole	0.977	0.216	0.354	0.314	30

Notes: All items are nickel plated. Dimensions are in inches. Other sizes are available by special order. Pull figures are maximum values; these will be achieved with a flat ground steel plate of adequate thickness where contact faces are clean.





LOW PROFILE NEO CHANNELS

Width	Height	Length	Pull lbs	Mounting	Finish	Magnet Item #	Matching Rubber Boot
0.750	0.188	2.000	80	2 Ctr holes for #8 Flathead	Clear Zinc	65CN0007	69R0003
1.250	0.188	2.000	92	2 Ctr holes for #8 Flathead	Clear Zinc	65CN0008	69R0002



ADAMS ORIGINAL CHANNELS

Item	Stock	Width	Height	Length	Mounting	Finish	Pounds Pull
65CA0001	CH-10-R	0.890	0.250	1.00	0.130 ctr hole	Nickel	5
65CA0006	CH-10-C	0.875	0.250	1.00	0.125 ctr hole	Nickel	10
61ANZ002	CH-10	0.880	0.250	1.00	0.125 ctr hole	Zinc	30
65CB0005	CH-10-2	0.950	0.320	2.00	None	Nickel	14
65CB0003	CH-10-2	0.945	0.315	2.00	Loop	Nickel	14
65CB0002	CH-10-2	0.960	0.315	2.63	0.170 side holes	Nickel	14
65CJ0001	CH-32	1.050	0.465	2.70	0.192 side holes	Zinc	25
65CJ0002	CH-32	1.040	0.462	2.70	Loop	Zinc	25
65CI0016	CH-3	0.900	0.255	3.00	Welded nut	Nickel	22
65CI0002	CH-3	0.900	0.255	3.00	None	Nickel	22
65CK0001	CH-35	1.500	0.455	3.00	0.202 slots	Zinc	60
65CM0001	CH-6	1.520	0.441	6.00	0.250 side holes	Zinc	100
65CN0001	CH-8	1.065	0.470	8.00	0.435 slots	Zinc	60
61N0002	CH-8	1.075	0.500	7.90	0.430 slots	Black	30
65CC0001	CH-12	0.710	0.200	12.00	0.150 side holes	Zinc	10
65CD0001	CH-12-3	1.720	0.620	12.00	0.250 side holes	Zinc	150

Dimensions are in inches. Pull figures are maximum values; these will be achieved with a flat ground steel plate of adequate thickness where contact faces are clean. Other sizes and finishes are available.

SANDWICHES

Width	Thickness	Length	Pounds Pull	Stock	Item
0.835	0.315	1.060	10	SA-10-R	62CA0001
0.844	0.313	1.060	16	SA-10-C	62CA0002
0.844	0.563	1.060	20	SA-103C	65CB0001
0.844	0.347	2.094	25	SA-20	62DC0001
0.844	0.313	3.060	22	SA-30	65E0001
0.615	1.540	2.125	50	SA-WELD	62CZ0002
0.637	1.000	2.125	50	SA-F	62CJ0001

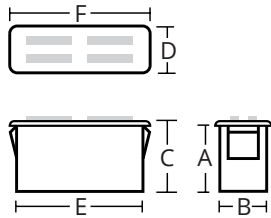
Dimensions are in inches. Pull figures are maximum values; these will be achieved with a flat ground steel plate of adequate thickness where contact faces are clean. Other sizes and finishes are available.



HOOKS AND FASTENERS

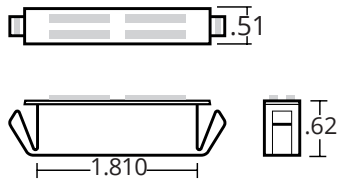
Most of our magnet assemblies are designed to accept a hook or other fastener to help join and hold your products. We can source and supply hooks to meet your requirements. Just ask!





FL-SERIES - WHITE LATCHES

A	B	C	D	E	F	Pounds Pull	Item	Stock
0.43	0.31	0.46	0.37	0.87	0.94	4	63D0007	FL-20
0.43	0.31	0.47	0.39	1.32	1.56	6	63D0008	FL-30
0.45	0.38	0.50	0.41	2.38	2.50	10	63D0009	FL-40



BASIC K MODULAR ADAPTER

Width	Height	Length	Pounds Pull	Color	Item
0.51	0.62	1.81	20	Black	63D0011



LOW PROFILE NEODYMIUM LATCH

Width	Length	Thickness	Pounds Pull	Mount	Plating	Item
0.650	1.614	0.102	8	#4 screw	Nickel	63D0032

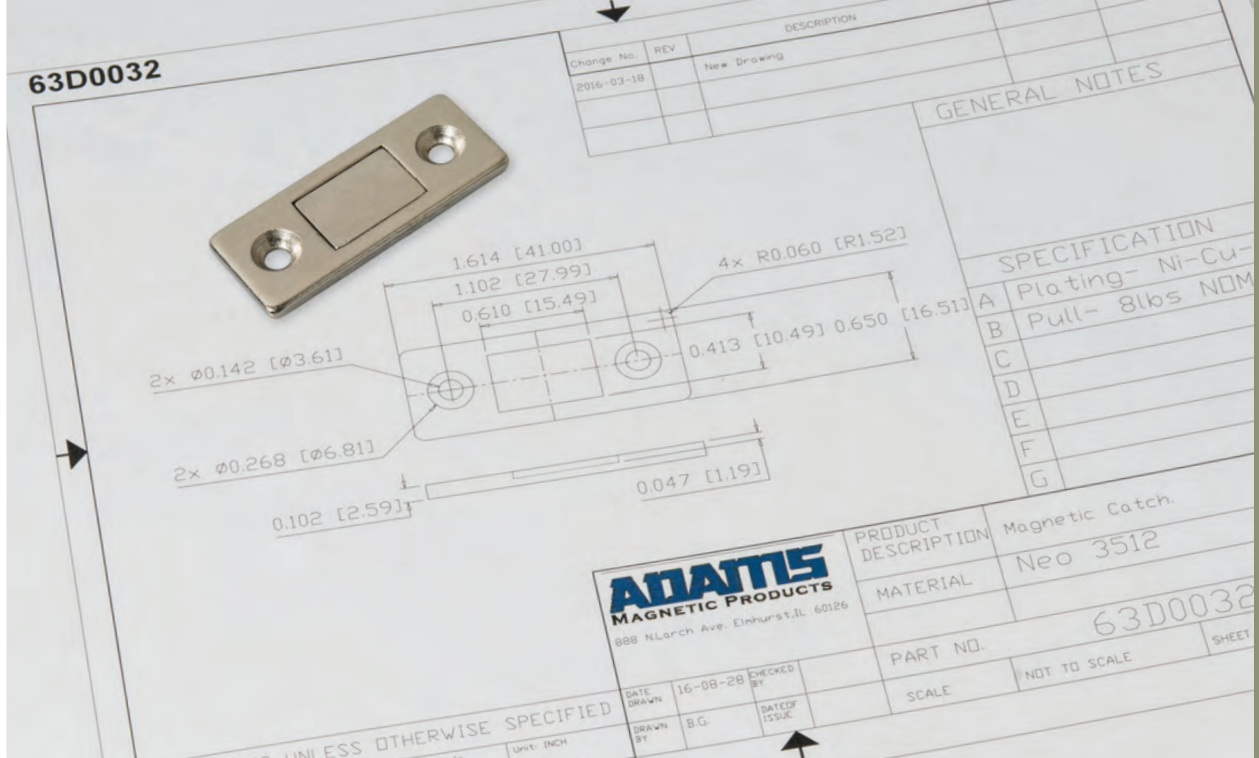


COUNTERSUNK NEODYMIUM RING MAGNETS

OD	Thickness	ID	Screw No.	Grade	Pounds Pull	Item	Strike Plate	OD
0.375	0.125	0.125	4	4512	3.8	50A0668	69S0064	0.500
0.375	0.125	0.136	4	3512	3.0	50A0225	69S0064	0.500
0.500	0.125	0.136	4	3512	4.5	50A0226	69S0065	0.625
0.625	0.125	0.170	6	4212	7.1	65P0027	69S0065	0.625
0.750	0.125	0.194	8	3512	7.2	50A0227	69S0066	0.875

Dimensions are in inches. Pull figures are maximum values; these will be achieved with a flat ground steel plate of adequate thickness where contact faces are clean. Other sizes and finishes are available.

Don't see what you're looking for? Adams offers many other magnet latches. Just let us know what you need!



CUSTOM MADE MAGNETS AND ASSEMBLIES

Since our founding in 1950, Adams has specialized in the production of custom fabricated magnets and assemblies to meet a wide variety of customer specific applications. Whether you're in need of initial prototype samples or large production runs, Adams leverages our in-house machining, assembly, inspection, magnetizing, and engineering expertise, with our global partnerships to provide solutions that meet or exceed our customers cost and lead-time constraints.

Utilizing both our extensive in-house capabilities as well as those of our trusted local and global partners, Adams can provide almost any type of magnetic assembly or subassembly made from virtually any type and grade of magnetic material.

Our capabilities include but are not limited to:

- OD, ID, and surface grinding
- Cutting, slicing, and scoring
- Wire, and Sinker EDM Machining
- Drilling, turning, and milling
- Injection overmolding
- Stamping
- Coating (nickel, gold, silver, zinc, tin, epoxy, paint, powder coat, Everlube, Parylene)
- Assembly
- Bonding, fastening and potting
- Magnetizing

Through ongoing training and continuous improvement projects Adams is committed to excellence in every aspect of our business, and with over 65 years in the magnetics industry, you can rest easy knowing that we will always be here for continuing reliable service.



**COMMON
APPLICATIONS**

Thousands exist!
Here are just a few
that start with M:
Medical Instruments
Microphones
Motors



HARD MAGNETS

MORE THAN 60 YEARS OF EXPERTISE

Whether you need simple craft magnets or highly technical electronic and electromechanical designs, Adams has the knowledge, expertise and procedures in place to meet even the most stringent of quality standards in the manufacture of industrial magnets. From complete testing and analysis of magnetic materials to application and design engineering assistance, Adams Magnetic Products is your one-stop source for these industrial magnet materials:

- Alnico
- Neodymium Iron Boron
- Samarium Cobalt
- Ferrite (Ceramic)

We can assist in streamlining magnetic components design in your product and help assure you are using the most appropriate magnet and associated components for your application to help drive cost saving opportunities.

ISO 9001:2015 CERTIFICATION

Adams maintains ISO 9001:2015 certification, reinforcing our strong operational processes and commitment to continual improvement. We have a standard of zero defects in everything we do.

MILITARY AND DEFENSE MATERIALS

Adams Magnetic Products has the knowledge, understanding and systems in place to fully comply with the Arms Export Control Act (AECA) and International Traffic in Arms Regulations (ITAR). As an ITAR registered supplier, you can rest assured your data and confidential information is safe with us.

DIRECTION OF MAGNETIZATION

Items listed on pages 27-28 are magnetized through the thickness. Ask us if you need magnetization through another dimension.



NEODYMIUM MAGNETS STOCK OR CUSTOM

We have millions of magnets in stock, and can also make neodymium magnets to your specifications. Please refer to our chart of magnetic properties on page 35 to compare the characteristics of each grade, or ask for our detailed materials catalog. Before choosing a Neo magnet be sure to consider your application's maximum operating temperature. Let our knowledgeable engineering department assist you in determining the best grade and size of Neo magnet for your application.

ROUND NICKEL COATED

Diameter	Thickness	Grade	Pounds Pull	Item
0.060	0.060	5211	0.1	50B6060
0.100	0.060	5014	0.4	50B0537
0.120	0.120	3512	0.5	50B0078
0.125	0.032	4812	0.3	50B0717
0.125	0.125	3014	0.5	50B0091
0.125	0.125	5211	0.8	50R0178
0.187	0.125	3012	1.0	50B0104
0.248	0.200	3014	2.2	50B0219
0.250	0.100	3512	1.5	50B0376
0.250	0.100	4212	1.8	50B0727
0.250	0.125	3012	1.6	50B0091
0.250	0.250	3814	3.0	50B0502
0.250	0.250	4212	3.3	50B0675
0.250	0.375	3514	3.0	50R0037
0.250	0.500	3017	2.5	50R0020
0.312	0.125	5211	4.0	50B0658
0.375	0.060	3512	1.7	50B0389
0.375	0.125	3512	3.5	50B0155
0.375	0.125	5211	5.3	50B0669
0.375	0.250	4817	7.8	50B0522
0.500	0.125	3512	5.3	50B0149
0.500	0.125	4812	7.0	50B0733
0.500	0.250	3512	9.0	50B0132
0.500	0.250	4212	10.5	50B0663
0.500	0.375	3512	11.0	50B0368
0.500	0.500	3512	12.0	50B0395
0.625	0.060	3014	2.5	50B0292
0.625	0.375	3512	15.5	50B0114
0.750	0.125	3512	8.0	50B0238
0.750	0.375	3512	20.0	50B0379
1.000	0.060	4512	5.2	50B0321
1.000	0.250	3514	22.0	50B0058

RECTANGULAR

Thickness	Width	Length	Grade	Plating	Pounds Pull	Item
0.060	0.240	0.750	3512	nickel	2.3	50C0189
0.060	0.375	0.375	3512	nickel	2.0	50C0311
0.190	0.150	0.150	3020	none	1.1	50C0194
0.250	0.125	0.125	3020	nickel	0.8	50C0151
0.250	0.500	0.750	3512	zinc	12.0	50C0080
0.250	0.750	0.750	3512	none	18.0	50C0233
0.500	1.000	1.000	3520	nickel	45.0	50C0327

COUNTERSUNK NEODYMIUM RING MAGNETS

OD	Thickness	ID	Screw No.	Grade	Pounds Pull	Item	Strike Plate	OD
0.375	0.125	0.125	4	4512	3.8	50A0668	69S0064	0.500
0.375	0.125	0.136	4	3512	3.0	50A0225	69S0064	0.500
0.500	0.125	0.136	4	3512	4.5	50A0226	69S0065	0.625
0.625	0.125	0.170	6	4212	7.1	65P0027	69S0065	0.625
0.750	0.125	0.194	8	3512	7.2	50A0227	69S0066	0.875



TABMAG® NEODYMIUM WITH ADHESIVE

KEY FEATURES & BENEFITS

- Adhesive liner has a die-cut tab for easy removal — saves time & effort.
- South pole magnets are marked with a red dot on the north face for easy identification and matching to unmarked mates.
- Separated by plastic spacers for easy handling and separation

PRODUCT DETAILS:

- Foam Adhesive 3M 4920 .016" thick foam adhesive can conform to the irregularities of rigid substrates.
- Thin Film Adhesive 3M Adhesive Transfer Tape 467MP acrylic adhesive 2 mil thick with 4 mil liner features solvent resistance, shear adhesion and short term repositionability for placement accuracy.
- Matching strike plates are .030" thick with Thin Film Adhesive

ROUND – NICKEL COATED – GRADE 3512

Foam Adhesive Item	Thin Adhesive Item	Thickness	OD	Pole with Adhesive	Matching Strike Plate
65PWF08	65PW008	0.060	0.375	north	69S0059
65PWF09	65PW009	0.060	0.375	south	69S0059
65PWF10	65PW0010	0.060	0.500	north	69S0055
65PWF11	65PW0011	0.060	0.500	south	69S0055
	65PW249	0.125	0.500	south	69S0055
65PWF03	65PW0012	0.060	0.750	north	69S0056
65PWF04	65PW0013	0.060	0.750	south	69S0056
65PWF05	65PW0014	0.080	1.000	north	69S0050
65PWF06	65PW0015	0.080	1.000	south	69S0050

RECTANGULAR – NICKEL COATED – GRADE 3512

Foam Adhesive Item	Thin Adhesive Item	Thickness	Width	Length	Pole with Adhesive	Matching Strike Plate
65PWF01	65PW001	0.055	0.500	1.000	south	69S0001
65PWF02	65PW002	0.055	0.500	1.000	north	69S0001

Direction of magnetization is through the thickness for all Neodymium magnets listed. Pounds Pull /holding forces are approximate as size, shape, flatness and material of the test pieces will affect actual pull forces. Dimensions are listed in inches. Standard tolerances are +/- .005". Additional sizes, plating options and grade choices are also available.



SAMARIUM COBALT (SMCO) MAGNETS

For high heat applications, Adams carries Samarium Cobalt in grades that will operate up to 350°C. Adams stocks SmCo magnets in block, ring and disc form in a variety of sizes and grades, and we are fully equipped to produce the size and tolerance that you require.

Please refer to our chart of magnetic properties on page 35 to compare the characteristics of each grade, or ask for our detailed materials catalog.



SmCo Disc



SmCo Block

ALNICO MAGNETS

Alnico magnets can have very strong flux output and are stable at high temperatures, and are often used in sensors, relays, motors, guitar pickups and more.

Adams stocks a variety of shapes, sizes, and grades of Alnico magnets. Alnico 5 is the grade most widely used, but we also offer Alnico 2, 5, 5-7, 7, 8 and 9. Adams provides in-house cutting and grinding to meet your application requirements. We also provide magnetic circuit design assistance to enable you to choose the proper material and the appropriate size magnet to perform the task you require.

Please refer to our chart of magnetic properties on page 35 to compare the characteristics of each grade, or ask for our detailed materials catalog.



Round rods and square bars



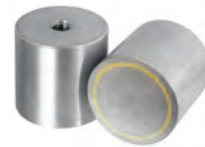
Horseshoe



Rotors



Channels



Alnico Pot Magnets

CERAMIC MAGNETS

Ceramic magnets, also known as hard ferrites, are among the most economical magnetic materials available and are often the first materials considered when determining a magnetic solution. Due to their brittle nature these magnets will not withstand impact or flexing. They are also not recommended to be used as structural components in assemblies Adams stocks a variety of shapes in material grades 1,5 & 8. The charts below represent only a small sampling of our stock. If you don't see what you're looking for, just ask!

CONVENTIONAL DISCS

Diameter	Thickness	Grade	Item
0.500	0.250	1	30B0007
0.709	0.197	5	30B0009
0.985	0.156	5	30B0071
1.000	0.250	8	30B0054

MULTIPLE POLE DISCS

Diameter	Thickness	Grade	Item
0.709	0.197	5	30B0076
1.000	0.156	5	30B0078

CONVENTIONAL RINGS

OD	ID	Thickness	Grade	Item
1.250	0.709	0.200	5	30A0007
1.750	0.866	0.275	5	30A0009
2.375	1.000	0.280	5	30A0010
2.820	1.250	0.330	5	30A0014

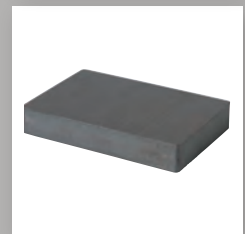
CONVENTIONAL RECTANGLES

Thickness	Width	Length	Grade	Item
0.187	0.750	1.000 w/ 0.187 hole	5	30C0005
0.187	0.875	1.870	8	30C0157
0.375	0.875	1.750	5	30C0011
0.387	0.875	1.875	5	30C0012
0.500	2.000	3.000	8	30C0170
0.500	4.000	6.000	8	30C0018
0.750	4.000	6.000	8	30C0026
1.000	2.000	6.000	8	30C0126
1.000	3.000	6.000	8	30C0144
1.000	4.000	6.000	8	30C0035
1.000	3.500	10.625	8	30C0036

Dimensions are listed in inches. Standard tolerances are +/- .005" for ground dimensions and +/- 2% of feature size for sintered dimensions. For more information on direction of magnetization (conventional vs. multiple pole) see page 33. For material characteristics, see page 35.

MAGNETIZED OR NOT?

We can supply ceramic magnets magnetized, or not magnetized. Please be sure to let us know your preference.



CUSTOM FABRICATION

In addition to offering thousands of stock standard shapes and sizes, Adams offers custom fabrication services to deliver the magnet you need based on your specifications.

Through our production facility in Elmhurst, IL, we offer the following services:

- Machining
- Grinding
- Assembly
- Magnetizing
- Finishing and Coating Services



Technical drawing annotations:
#0.190 (4)
Upper (tapered thru hole)
#0.146±0.005 (4)
Bottom
L612(4) REF.

netized
face 0.005 min.
have 0.080

ADAMS
MAGNETIC PRODUCTS
888 N Larch Ave. Elmhurst, IL 60120

QUALITY CONTROL

Adams is an
ISO 9001:2015 certified
and ITAR registered
company.

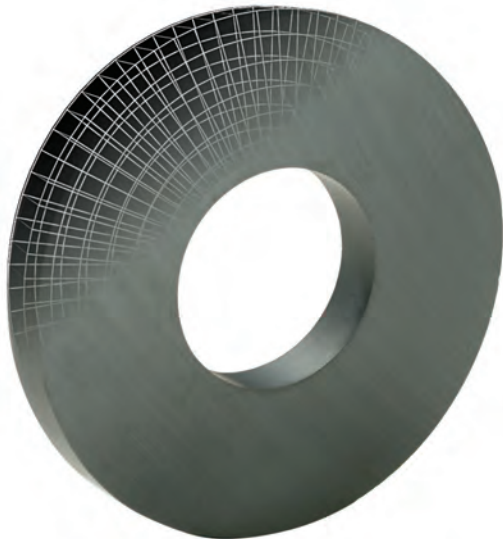
TECHNICAL SUPPORT

Adams Magnetic Products has been designing and manufacturing magnetic products since 1950. Let us put our knowledge to work for you by utilizing our highly-skilled technical experts to help solve your magnetic needs. Whether it's sizing a magnet to fit an application, choosing the most cost effective material or just helping you get started with what is available in the market, we are here to help:

- Application and Design Engineering Assistance
- Testing/Analysis of Magnetic Materials
- CAD Services for Drawings and Specifications
- Magnetic Circuit Analysis/FEA
- Value Analysis/Value Engineering Support
- Advance Product Quality Planning

QUICK TURN SAMPLES AND SHORT RUN PRODUCTION

With extensive machining capabilities and thousands of magnets in stock, Adams can turn around samples in days instead of weeks. This means shorter product development cycles for you and increased revenue through speed to market. We can also assist you with short run production; from one piece to thousands, we are here to support your needs. Adams has the knowledge, expertise, and procedures in place to meet even the most stringent of quality standards.

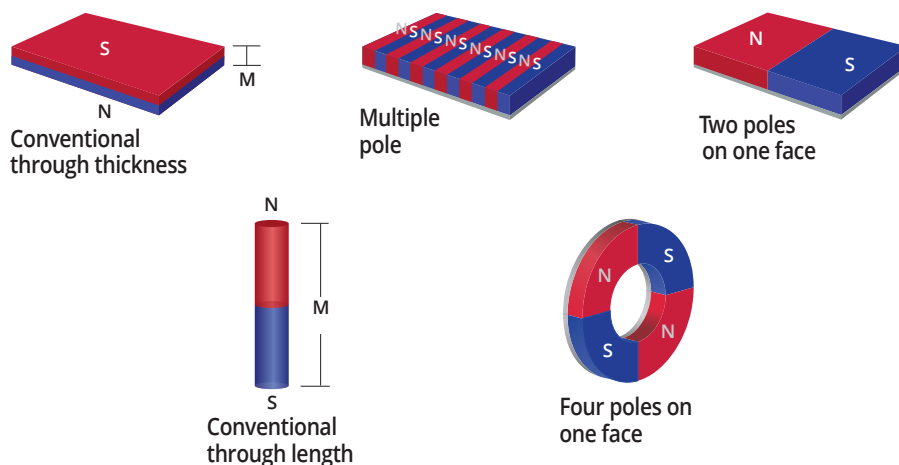


MAGNETIZATION

DIRECTION OF MAGNETIZATION

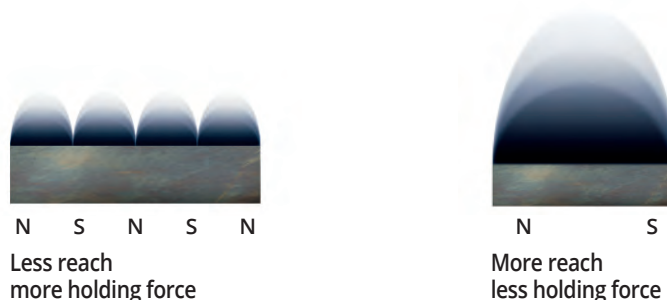
Materials are magnetized in several ways. The images to the left indicate the directions of magnetization that are commonly applied when making magnets.

Methods of magnetization are related to the material type. For specific questions about methods of magnetization, please consult our engineering staff. For instance, while multiple pole magnetization adds to the direct holding force of flexible magnets, it is not feasible for most neodymium and samarium cobalt magnets. And magnetizing alnico can result in a large amount of self-demagnetization unless the part is magnetized in the circuit.



POLE SPACING

While multiple poles spaced closely together can increase holding power, they can reduce the reach of the magnet. Inversely, when fewer poles are present, magnetic reach increases, but on contact, holding power is reduced.



MAGNETIZING

We build all our own magnetizers to best suit each type of material we work with. We can magnetize most magnets or magnetic assemblies for you. If needed, we'll even build special fixtures to meet your particular magnetization requirements.

GLOSSARY

TALK THE TALK

We've outlined a few important words and phrases to help you get a better understanding of the magnetic field.

COERCIVITY is a measure of the “permanence” of a permanent magnet. It describes the strength of the reverse magnetic field required to demagnetize a magnet after it has been magnetized.

COERCIVE FORCE is the demagnetizing force required to reduce the residual induction of a fully magnetized magnet to zero.

CURIE TEMPERATURE represents the point beyond which magnetic materials lose their magnetism.

ELECTROMAGNETS emit a magnetic field only when an electrical current runs through them.

GAUSS is a unit of magnetic flux density equal to 1 maxwell per square centimeter. Gauss is represented by the symbol B.

HARD MAGNETS are permanent magnets.

INTRINSIC COERCIVE FORCE is a magnetic materials ability to resist demagnetization.

MAGNET is a label that applies to objects made of materials that create a magnetic field. Magnets have poles, at least one north pole and one south pole.

MAGNETIC FIELD is the region in space where a magnetic force can be detected. The magnetic field strength and direction can be measured.

MAGNETIC FLUX is a concept that attempts to describe the flow of a magnetic field.

MAGNETIC POLES are the points in all magnets where their magnetic strength is concentrated. Those points are called poles. We label them north and south because suspended magnets orient along north-south planes. On different magnets, like poles repel each other, opposite poles attract.

MAGNETISM is the force of attraction or repulsion between materials made of certain elements, such as iron, nickel, cobalt, and their alloys.

MAXIMUM ENERGY PRODUCT is a quality index representing both the saturation magnetization and coercivity of a permanent magnet. The higher the energy product of a magnet, the smaller it needs to be to perform a specific function.

MAXIMUM OPERATING TEMPERATURE is the maximum temperature of exposure that a magnet can forego without significant long-range instability or significant flux losses.

NORTH POLE is the magnetic pole which attracts the geographic North Pole.

RESIDUAL INDUCTION is the magnetic induction corresponding to zero magnetic force in a magnetic material after full magnetization in a closed circuit.

ORIENTATION DIRECTION refers to the preferred direction in which some magnets, called oriented or anisotropic magnets, should be magnetized. The “orientation direction,” also known as an “easy axis” or “axis,” is the direction that achieves its maximum magnetism. Other magnets, called unoriented or isotropic magnets, can be magnetized in any direction.

PERMANENT MAGNETS emit a magnetic field without the need for any external source of power.

RARE EARTH MAGNETS is a term used to refer to a group of magnetic materials whose alloys consist of one or more of the Rare Earth elements. These materials are characterized by exceptionally strong magnetic properties.

MATERIALS CHART OF PROPERTIES

Grade	Residual Induction Br-Gs	Intrinsic Coercive Hci-Oe	Coercive Force Hc-Oe	BHmax Energy MGOe	Max. Operating Temp. in °C/°F at an Operating Slope of 1	TC of Br %/°C	TC of Hci %/°C
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FLEXIBLE MATERIAL

Standard	1625	2400	1380	0.65	71 °C/160 °F	-	-
High Energy	2480	3050	2040	1.40	79 °C/175 °F	-	-

ALNICO MATERIAL

Cast Alnico 2	7500	580	560	1.7	550 °C/1020 °F	-0.02	-
Cast Alnico 3	7000	500	480	1.35	550 °C/1020 °F	-0.02	-
Cast Alnico 5	12800	640	640	5.5	550 °C/1020 °F	-0.02	-
Cast Alnico 5-7	13500	740	740	7.5	550 °C/1020 °F	-0.02	-
Cast Alnico 8	8200	1860	1650	5.3	550 °C/1020 °F	-0.02	-
Cast Alnico 9	10600	1500	1500	9.0	550 °C/1020 °F	-0.02	-
Sintered Alnico 2	7100	570	550	1.5	450 °C/840 °F	-0.02	-
Sintered Alnico 5	10900	630	620	3.9	450 °C/840 °F	-0.02	-
Sintered Alnico 8	7400	1690	1500	4.0	450 °C/840 °F	-0.02	-

above values are nominal properties

CERAMIC MATERIAL

Ceramic 1	2300	3000	1850	1.0	399°C/750°F	-0.2	0.2~0.5
Ceramic 5	3950	2500	2400	3.4	399°C/750°F	-0.2	0.2~0.5
Ceramic 8a	3900	3050	2950	3.5	399°C/750°F	-0.2	0.2~0.5
Ceramic 8b	4200	2950	2900	4.1	399°C/750°F	-0.2	0.2~0.5
Ceramic 8c	4300	2750	2700	4.2	399°C/750°F	-0.2	0.2~0.5

above values are nominal properties

SAMARIUM COBALT MATERIAL

1.5 SERIES

SmCo 18	8,400~8,900	≥23,000	8,100~8,600	17-19	250°C/482°F	-0.040	-0.30
SmCo 20	8,900~9,300	≥23,000	8,600~9,100	19-21	250°C/482°F	-0.045	-0.30
SmCo 22	9,200~9,600	≥23,000	8,600~9,400	21-23	250°C/482°F	-0.045	-0.30
SmCo 24	9,600~10,000	≥23,000	9,300~9,800	22-24	250°C/482°F	-0.045	-0.30

2.17 SERIES

SmCo2412	9500~10,200	8k/12k	6,800~9,000	22-24	250°C/482°F	-0.025	-0.20
SmCo2612	10,200~10,500	8k/12k	6,800~9,400	24-26	250°C/482°F	-0.035	-0.20
SmCo2812	10,300~10,800	8k/12k	6,800~9,600	26-28	250°C/482°F	-0.035	-0.20
SmCo3012	10,800~11,500	8k/12k	6,800~10,000	28-30	250°C/482°F	-0.035	-0.20
SmCo3212	11,000~11,500	8k/12k	6,800~10,200	29-32	250°C/482°F	-0.035	-0.20
SmCo2616	10,200~10,500	12k-18k	8,500~9,800	24-26	300°C/572°F	-0.035	-0.20
SmCo2816	10,300~10,800	12k-18k	8,500~10,000	26-28	300°C/572°F	-0.035	-0.20
SmCo3016	10,800~11,000	12k-18k	8,500~10,500	28-30	300°C/572°F	-0.035	-0.20
SmCo3216	11,000~11,300	12k-18k	8,500~10,600	29-32	300°C/572°F	-0.035	-0.20
SmCo2218	9300~9,700	≥ 18,000	8,500~9,300	20-23	300°C/572°F	-0.020	-0.20
SmCo2418	9500~10,200	≥ 18,000	8,700~9,600	22-24	300°C/572°F	-0.025	-0.20
SmCo2618	10,200~10,500	≥ 18,000	9,400~10,000	24-26	300°C/572°F	-0.030	-0.20
SmCo2818	10,300~10,800	≥ 18,000	9,500~10,200	26-28	300°C/572°F	-0.035	-0.20
SmCo3018	10,800~11,500	≥ 18,000	9,900~10,500	28-30	300°C/572°F	-0.035	-0.20
SmCo3218	11,000~11,500	≥ 18,000	10,200~10,700	29-32	300°C/572°F	-0.035	-0.20
SmCo2425	9500~10,200	≥ 25,000	8,700~9,600	22-24	350°C/662°F	-0.025	-0.20
SmCo2625	10,200~10,500	≥ 25,000	9,400~10,000	24-26	350°C/662°F	-0.030	-0.20
SmCo2825	10,300~10,800	≥ 25,000	9,500~10,200	26-28	350°C/662°F	-0.035	-0.20
SmCo3025	10,800~11,000	≥ 25,000	9,900~10,500	28-30	350°C/662°F	-0.035	-0.20
SmCo3225	11,000~11,300	≥ 25,000	10,200~10,700	29-32	350°C/662°F	-0.035	-0.20

We offer additional grades with some properties added or improved upon request.

Please consult our sales representative or technical personnel for more details.

MATERIALS CHART OF PROPERTIES

Grade	Residual Induction Br-kGs	Intrinsic Coercive Hci-kOe	Coercive Force Hc-kOe	BHmax Energy MGOe	Max. Operating Temp. in °C/°F at an Operating Slope of 1	TC of Br %/°C	TC of Hci %/°C
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NEODYMIUM MATERIAL

Neo2825 (UH)	10.2~10.8	≥25	9.6	25~28	108/356	-0.12	-0.70
Neo2830 (EH)	10.4~10.9	≥30	9.8	25~28	200/392	-0.12	-0.70
Neo2834 (AH)	10.2~10.9	≥34	9.8	25~29	230/446	-0.12	-0.70
Neo3020 (SH)	10.8~11.3	≥20	10.1	28~31	150/302	-0.12	-0.70
Neo3025 (UH)	10.8~11.3	≥25	10.2	28~31	180/356	-0.12	-0.70
Neo3030 (EH)	10.8~11.3	≥30	10.2	28~31	200/392	-0.12	-0.70
Neo3034 (AH)	10.7~11.3	≥34	10.5	27~31	230/446	-0.12	-0.70
Neo3312 (N)	11.3~11.7	≥12	10.5	31~34	80/176	-0.12	-0.70
Neo3314 (M)	11.3~11.7	≥14	10.5	31~34	100/212	-0.12	-0.70
Neo3317 (H)	11.3~11.7	≥17	10.5	31~34	120/248	-0.12	-0.70
Neo3320 (SH)	11.3~11.7	≥20	10.6	31~34	150/302	-0.12	-0.70
Neo3325 (UH)	11.3~11.7	≥25	10.7	31~34	180/356	-0.12	-0.70
Neo3330 (EH)	11.3~11.7	≥30	10.3	31~34	200/392	-0.12	-0.70
Neo3333 (AH)	11.1~11.7	≥33	10.5	30~34	230/446	-0.12	-0.70
Neo3512 (N)	11.7~12.2	≥12	10.9	33~36	80/176	-0.12	-0.70
Neo3514 (M)	11.7~12.2	≥14	10.9	33~36	100/212	-0.12	-0.70
Neo3517 (H)	11.7~12.2	≥17	10.9	33~36	120/248	-0.12	-0.70
Neo3520 (SH)	11.7~12.2	≥20	11.0	33~36	150/302	-0.12	-0.70
Neo3525 (UH)	11.7~12.2	≥25	10.8	33~36	180/356	-0.12	-0.70
Neo3530 (EH)	11.7~12.2	≥30	10.5	33~36	200/392	-0.12	-0.70
Neo3533 (AH)	11.7~12.2	≥33	10.5	33~36	230/446	-0.12	-0.70
Neo3812 (N)	12.2~12.5	≥12	11.3	36~39	80/176	-0.12	-0.70
Neo3814 (M)	12.2~12.5	≥14	11.3	36~39	100/212	-0.12	-0.70
Neo3817 (H)	12.2~12.5	≥17	11.3	36~39	120/248	-0.12	-0.70
Neo3820 (SH)	12.2~12.5	≥20	11.4	36~39	150/302	-0.12	-0.70
Neo3825 (UH)	12.2~12.5	≥25	11.0	36~39	180/356	-0.12	-0.70
Neo3830 (EH)	12.0~12.5	≥30	11.5	35~39	200/392	-0.12	-0.70
Neo3833 (AH)	12.2~12.6	≥33	11.6	36~39	220/428	-0.12	-0.70
Neo4012 (N)	12.5~12.8	≥12	11.6	38~41	80/176	-0.12	-0.70
Neo4014 (M)	12.5~12.8	≥14	11.6	38~41	100/212	-0.12	-0.70
Neo4017 (H)	12.5~12.8	≥17	11.6	38~41	120/248	-0.12	-0.70
Neo4020 (SH)	12.5~12.8	≥20	11.8	38~41	150/302	-0.12	-0.70
Neo4030 (EH)	12.5~12.9	≥30	11.5	38~41	190/374	-0.12	-0.70
Neo4025 (UH)	12.5~12.8	≥25	11.5	38~41	180/356	-0.12	-0.70
Neo4212 (N)	12.8~13.2	≥12	11.6	40~43	80/176	-0.12	-0.70
Neo4214 (M)	12.8~13.2	≥14	12.0	40~43	100/212	-0.12	-0.70
Neo4217 (H)	12.8~13.2	≥17	12.0	40~43	120/248	-0.12	-0.70
Neo4220 (SH)	12.8~13.2	≥20	12.2	40~43	150/302	-0.12	-0.70
Neo4225 (UH)	12.7~13.2	≥25	12.2	40~43	170/338	-0.12	-0.70
Neo4229 (EH)	12.8~13.2	≥29	12.2	39~43	180/356	-0.12	-0.70
Neo4512 (N)	13.2~13.7	≥12	11.0	43~46	80/176	-0.12	-0.70
Neo4514 (M)	13.2~13.7	≥14	12.5	43~46	100/212	-0.12	-0.70
Neo4517 (H)	13.2~13.7	≥17	12.2	43~46	120/248	-0.12	-0.70
Neo4520 (SH)	13.2~13.7	≥20	12.3	43~46	140/284	-0.12	-0.70
Neo4525 (UH)	13.2~13.7	≥24	12.5	43~47	160/320	-0.12	-0.70
Neo4812 (N)	13.7~14.2	≥12	11.2	45~49	80/176	-0.12	-0.70
Neo4814 (M)	13.6~14.2	≥14	12.8	45~49	100/212	-0.12	-0.70
Neo4817 (H)	13.6~14.2	≥17	12.9	45~49	110/230	-0.12	-0.70
Neo4820 (SH)	13.6~14.2	≥20	12.5	45~49	130/266	-0.12	-0.70
Neo5012 (N)	13.9~14.4	≥12	10.5	47~51	60/132	-0.12	-0.70
Neo5014 (M)	13.9~14.4	≥14	13.0	47~51	90/194	-0.12	-0.70
Neo5016 (H)	13.9~14.4	≥16	13.0	47~51	100/212	-0.12	-0.70
Neo5211 (N)	14.3~14.8	≥11	10.5	49~53	60/140	-0.12	-0.70
Neo5213 (M)	14.2~14.7	≥13	12.5	49~53	80/176	-0.12	-0.70



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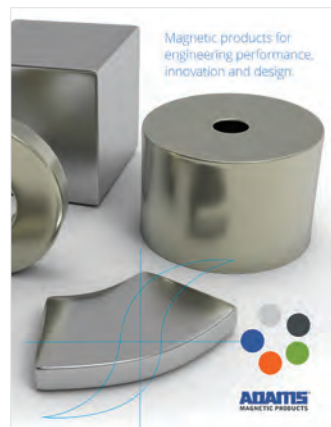
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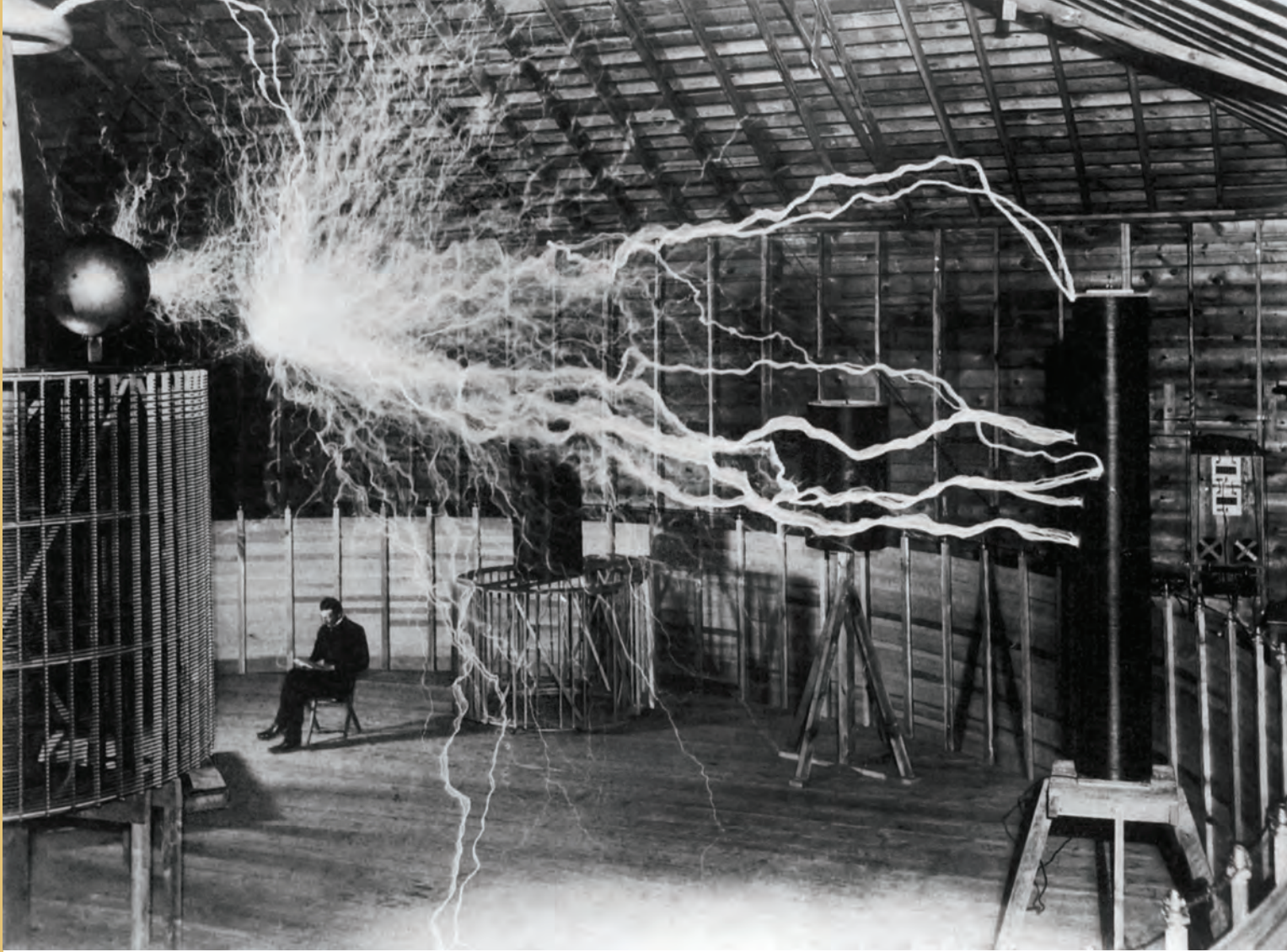
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