



***Flexible Magnetic
Products for Graphics***



Printable Magnetics

Entice – Subtle attraction pre-magnetized substrate for offset and digital

- 13 pt and 17 pt—available with either white or clear matte back
- Competes directly with Magnecote®

Energize - Standard energy un-magnetized substrate for offset and digital

- 13 pt and 17 pt—available with either white or clear matte back
- Requires magnetizing after printing

Digital Offset - Standard energy unmagnetized substrates

- White back available in 13, 14, and 17 pt
- Gloss Paper or Matte Polypropylene face stock
- Certified or Qualified by press manufacturer
- Requires magnetizing after printing

Desktop Inkjet - Standard energy magnet for water based inkjet printers

- Pre-magnetized - matte or gloss finish - near photo quality print

Desktop Laser - Standard energy magnet - matte finish

- Pre-magnetized - for desktop color laser and inkjet printers

Flexcoat-EZ - Printable coating for wide format, UV offset, and screen

- No Curl or Delamination, Easier, Cleaner Cutting
- 100% Recyclable - No Phthalates (safe for children)
- Standard roll widths are 24-5/16", 30" and 40"
- Available in .015", .020", and .030"
- Compatible with solvent, eco-solv, UV, and latex inks
- Clear matte or white backside coating to protect host surface
- Indoor / outdoor use - magnetized or un-magnetized

ULTRA MAG VINYL - Magnet with printable vinyl surface for wide format

- Available in both matte and gloss finish with matte backside coating
- Standard roll widths are 24-5/16", 30" and 40"
- Available in .015", .020", and .030" (+ .004" vinyl)
- Compatible with solvent, eco-solv, UV, and latex inks
- Clear matte backside coating to protect host surface
- Indoor / outdoor use - magnetized or unmagnetized

FERROSHEET - Magnetic Receptive Sheeting

- Plain, paper, BOPP, PET, or vinyl face - with or without adhesive



Recommended Substrates



Desktop Color Printers (pre-magnetized)		
13.5 pt - 8.5 x 11" Inkjet Photo Gloss		4279-5
13.5 pt - 8.5 x 11" Inkjet Photo Matte		4287-5
13.5 pt - 8.5 x 11" Color Laser and Inkjet		12520-5



Kodak NexPress™		
13 pt - Entice	12 x 18" (magnetized)	10788-5
13 pt - Energize	12 x 18" (unmagnetized)	11812-5
14 pt - Kodak Qualified	(unmagnetized)	4319-5



Xerox iGen™, 700, 800, 1000, and Versant™		
13 pt - Entice	12 x 18" (magnetized)	10788-5
13 pt - Energize	12 x 18" (unmagnetized)	11812-5
17 pt - Entice	12 x 18" (magnetized)	10787-5
17 pt - Energize	12 x 18" (unmagnetized)	10915-5
17 pt - iGen Qualified	(unmagnetized)	8962-5



Other Digital Printing Systems
 Contact your Flexmag Representative for substrate & printer compatibility for specific machines. We recommend that a sample trial run is made before ordering product for digital printers and copiers.



Standard Offset Presses		
13 pt - Entice	(magnetized)	various / custom sizes
13 pt - Energize	(unmagnetized)	various / custom sizes
17 pt - Entice	(magnetized)	various / custom sizes
17 pt - Energize	(unmagnetized)	various / custom sizes



Wide Format Inkjet and Flatbed (50' rolls)		
.015" - Ultramag Vinyl	(24") 10902-4	(30") 11788-4
.020" - Ultramag Vinyl	(24") 10693-4	(30") 11263-4
.030" - Ultramag Vinyl	(24") 10860-4	(30") 10907-4
.015" - FlexCoat-EZ (24")	mag: 15501-4	unmag: 10389-4
.020" - FlexCoat-EZ (24")	mag: 9630-4	
.030" - FlexCoat-EZ (24")	mag: 10362-4	unmag: 10196-4
.030" - FlexCoat-EZ (40")	mag: 12634-4	unmag: 12645-4

™ NexPress, iGen and Versant are trademarks of their respective manufacturers



Entice™

Subtle attraction pre-magnetized substrate for offset and digital printing
 Available in 13 pt and 17 pt - white or clear matte back

Entice your customers through subtle attraction with a magnetic reminder or coupon that they will put on their refrigerator or filing cabinet. With an average view rate of over 50 times per day, a refrigerator magnet is an easy way to keep your message in front of potential customers.

Flexmag's **Entice** substrate is a premium coated offset paper laminated to a controlled energy pre-magnetized sheet. It will feed and print beautifully on most offset and digital presses.

With the optional white back, you do not have to shut off your optical sheet detectors, and it does not have to be slip sheeted. The white back also gives the visual impact of superior quality to your finished piece.



Suggested Applications: Coupons, Direct Mail, Event Calendars, Business Cards, Sports Schedules, Promotions, Reminders, Take-out Menus

<u>Caliper</u>	<u>Size</u>	<u>White Back</u>	<u>Clear Matte</u>
.013"	11 x 17"	11984-5	11988-5
.013"	12 x 18"	10788-5	11989-5
.013"	13 x 19"	12659-5	12660-5
.013"	23 x 35"	11958-5	11990-5
.013"	24 x 19"	11957-5	11991-5
.017"	11 x 17"	11985-5	11985-5
.017"	12 x 18"	10787-5	11992-5
.017"	13 x 19"	12662-5	12525-5
.017"	23 x 35"	11960-5	11993-5
.017"	24 x 19"	11959-5	11994-5

Custom Sizes up to 25 x 40" Available



Entice is a trademark of
 Flexmag Industries and Arnold
 Magnetic Technologies

FLEXMAG™ **Energize**™

Made in the U.S.A.

Standard energy unmagnetized substrate for offset and digital printing
 Available in 13 pt and 17 pt - white or clear matte back

NOTE: Energize must be magnetized after printing - requires magnetizer

Energize your project with a strong magnetic message that your clients will put on their refrigerator or filing cabinet and will see every day. A strong printed magnet will keep your message in front of your potential customers instead of being trashed or stashed away in a drawer.



Flexmag's **Energize** substrate is a premium coated offset paper print surface on a standard energy un-magnetized sheet. It will feed and print beautifully on most offset and digital presses.

With the optional white back, you do not have to shut off your optical sheet detectors, and it does not have to be slip sheeted. The white back also gives the visual impact of superior quality to your finished piece.

Suggested Applications: Coupons, Direct Mail, Event Calendars, Business Cards, Sports Schedules, Promotions, Reminders, Take-out Menus



Energize is a trademark of
 Flexmag Industries and
 Arnold Magnetic Technologies

<u>Caliper</u>	<u>Size</u>	<u>White Back</u>	<u>Clear Matte</u>
.013"	11 x 17"	12006-5	12410-5
.013"	12 x 18"	12666-5	12668-5
.013"	13 x 19"	12667-5	12669-5
.013"	24 x 19"	—	12670-5
.017"	11 x 17"	12018-5	—
.017"	12 x 18"	10915-5	11225-5
.017"	13 x 19"	12299-5	12643-5
.017"	23 x 35"	12019-5	—
.017"	24 x 19"	—	12470-5

Custom Sizes up to 25 x 40" Available



Digital Offset

Standard energy unmagnetized substrates for digital presses

NOTE: Must be magnetized after printing - requires magnetizer

Flexmag manufactures a line of digital substrates engineered specifically for today's newest digital offset presses. These stocks have been thoroughly tested and approved by the press manufacturers for use on their machines.

Item#	8962-5
Caliper	.017"
Sheet Size	12 x 18"
Face	Paper
Finish	Gloss
Back Side	Matte

Xerox iGen™

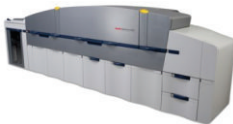
Xerox Qualified

Plus 700, 800, 1000 Series
& Versant



Kodak NexPress™

Kodak Qualified



Item #	4319-5
Caliper	.014"
Sheet Size	12 x 18"
Face	Paper
Finish	Gloss
Back Side	Matte

High Energy BOPP for Digital Printing of Vehicle Magnets

Item #	10457-5
Caliper	.015"
Sheet Size	12 x 18"

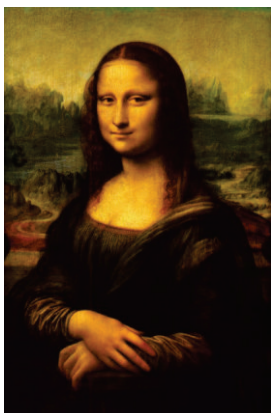


Desktop Inkjet & Laser

Standard energy magnet for color desktop printing

Matte or Gloss finish : pre-magnetized

These paper laminations are designed to print on standard desktop color printers, and provide near photo quality images. Since most desktop printers are made primarily of plastic, the magnetized sheet does not cause any feeding problems if manually fed one sheet at a time.



- Pre-magnetized products are designed for desktop printers only, and not for use on production laser printers or copiers.
- Determine if your print faces up or down
- Test print a sheet of paper before printing
- Feed one sheet at a time
- Cut using the same methods as paper
- Allow ink to dry before handling (inkjet)

Suggested Applications: In-Home Use, Portrait Studios, Wedding Photos, Graduations, Special Events, One Up Projects

Desktop Printer Magnetic Substrates

Item #	4279-5	4287-5	12520-5
Printer	Inkjet	Inkjet	Laser & Inkjet
Finish	Gloss	Matte	Matte
Caliper	.0135"	.0135"	.0135"
Width	8-1/2"	8-1/2"	8-1/2"
Length	11"	11"	11"
Mag Strength	33 lb/ft ²	33 lb/ft ²	33 lb/ft ²



Standard energy magnet with printable coating for wide format inkjet and UV offset
 Available in .015", .020", and .030" caliper, magnetized or unmagnetized

Flexcoat-EZ has been engineered to eliminate issues sometimes associated with vinyl laminated substrates. Instead of a laminated print surface, a durable printable coating is applied directly to the flexible magnet, and actually becomes a part of the magnet. It's like printing directly on a white magnet.

Flexcoat-EZ provides the following advantages over vinyl laminations:



- No Curl
- No Delamination
- Easier, Cleaner Cutting
- 100% Recyclable
- No Phthalates (safe for children)

Flexcoat-EZ is compatible with solvent, eco-solv, UV, and latex inks

Suggested Applications: Indoor/Outdoor Advertising, Banners, Menu Boards, Vehicle Signs (.030" only), Calendars, Business Cards, Coupons

50' Flexcoat E-Z Rolls

<u>Caliper</u>	<u>Width</u>	<u>Use</u>	<u>Magnetized</u>	<u>Item#</u>
.015"	24 5/16"	Indoor	Yes	15501-4
.015"	24 5/16"	Indoor	No*	10389-4
.020"	24 3/8"	In / Out	Yes	9630-4
.030"	24 5/16"	Outdoor	Yes	10362-4
.030"	24 5/16"	Outdoor	No*	10196-4
.020"	40"	In / Out	Yes	TBD
.030"	40"	Outdoor	Yes	12634-4
.030"	40"	Outdoor	No*	12635-4

Clear Matte Backside Coating to Protect Surfaces

*** Unmagnetized product requires magnetization after printing**

Flexcoat-EZ is a registered trademark of Flexmag Industries and Arnold Magnetic Technologies



**ULTRA[®]
MAG VINYL**

Standard energy magnet with printable vinyl surface for wide format printing

ULTRAMAG vinyl is the workhorse magnetic substrate for the sign and display market. It is compatible with the eco-solv, solvent, UV, and latex inks used in wide format inkjet and flatbed printers.

- Available in both matte and gloss finish
- Standard roll widths are 24-5/16", 30" & 40"
- Available in .015", .020", and .030"
- Clear matte backside coating
- Available magnetized or unmagnetized



Suggested Applications: Indoor/Outdoor Advertising, Banners, Menu Boards, Vehicle Signs (.030" only), General Signage

50' White Matte Vinyl Rolls

<u>Caliper</u>	<u>Width</u>	<u>Use</u>	<u>Item #</u>
.015"	24-5/16"	Indoor	10902-4
.020"	24-5/16"	In / Out	10693-4
.030"	24-5/16"	Outdoor	10860-4
.015"	30"	Indoor	11788-4
.020"	30"	In / Out	11263-4
.030"	30"	Outdoor	10907-4
.020"	40"	In / Out	TBD*
.030"	40"	Outdoor	TBD*

Also available in Gloss Vinyl Finish and Colors
Clear Matte Backside Coating to Protect Surfaces

* Coming soon - inquire about availability

ULTRAMAG is a registered trademark of Flexmag Industries
and Arnold Magnetic Technologies

Magnetic Receptive Sheeting for Offset, Digital, and Wide Format Plain, paper, polypropylene, and vinyl - with or without adhesive

Ferrosheet is a magnetic receptive media that can be used in conjunction with magnetic media to create easily changeable signs, banners, and other promotional and interactive pieces.



Flexmag **Ferrosheet** is available either plain or with a paper, BOPP, PET, or vinyl print surface. It is also available with either indoor or outdoor peel and stick adhesive, which allows it to be mounted to a wall or other surface as a receptor for magnetic graphics.

Since it is not magnetic, and cannot be made magnetic, it will run through printers without sticking to metal surfaces.

Suggested Applications: Changeable Signs, Banners, Pop Displays, Menu Boards, Wall Graphics, and other Advertising Applications

Ferrosheet Rolls

<u>Caliper</u>	<u>Width</u>	<u>Length</u>	<u>Face</u>	<u>Back</u>	<u>Item#</u>
.015"	24"	50'	Paper	Matte	11789-4
.015"	24"	50'	Plain	PSA	11123-4
.025"	24"	100'	Plain	Matte	8387-4

Custom Sizes and Configurations Available

Ask about availability of wider material





**ULTRA[®]
MAG** MAGNET

Plain Magnetic Sheeting

Sheets, rolls, strips, and shapes - with or without adhesive

ULTRAMAG Plain Magnetic Sheeting can be used to transform your printed material into a permanent magnet. Whether you are making signs, refrigerator magnets, wall displays, or for any other magnetic project, plain magnet may be your easiest and most economical choice for achieving your goal.



Flexmag's plain magnetic sheeting is the first choice for many of the nation's large refrigerator magnet and promotional products manufacturers.

Available in sheets, rolls, strips, and in a wide variety of shapes, sizes, strengths, and calipers.

Suggested Applications: Toys, novelties, games, sales promotions, die-cut pieces, architectural designs, visual aids, displays, fastening applications

	<u>Sheets</u>			
Item #	11165-5	10479-5	11100-5	9003-5
Caliper	.012"	.015"	.020"	.030"
Size	12 x 18"	12 x 18"	12 x 18"	12 x 18"
Adhesive	Yes	Yes	Yes	No

	<u>50' Rolls</u>			
Item #	5537-4	9103-4	5506-4	11061-4
Caliper	.015"	.030"	.015"	.030"
Width	24-5/16"	24-5/16"	24-5/16"	24-5/16"
Adhesive	No	No	Yes	Yes

Custom Sheet and Roll Sizes Available up to 30"



Magnetic Tape

Magnetic Tape

Strong magnetic strips with adhesive

Magnetic Tape is used in the graphics industry to fasten printed panels to magnetic receptive materials. It is used in the Sign and Display segment for trade show displays, in-store graphics, and POP displays. Two strips of tape can be used together to replace traditional hook and loop fastening strips.



Flexmag's magnetic tape comes in thicknesses ranging from .015" up to .060". The thinner tape is for very light duty tacking while the .060" thick tape is much stronger for more demanding applications.

Aside from regular strength magnetic tape, Flexmag also produces **Plastiform™** high energy magnetic tape for industrial applications.

Standard Energy Magnetic Tape

Item #	0222-1	0241-1	0285-1
Caliper	.060"	.060"	.060"
Width	1/2"	3/4"	1"
Length	100'	100'	100'

Custom Sizes Available

Plastiform is a registered trademark of Flexmag Industries



Magnetizers

For our non-magnetized products, we manufacture a series of magnetizers that can be used after the printing process is completed. These can be used on both standard energy and high energy magnets. Larger and custom built units are available as well.

Hand Held Magnetizer: This unit looks similar to a paint roller, and the length of the roller itself is 4.5". It primarily finds use in small print shops and sign shops that run small orders and cannot run pre-magnetized substrates. This unit will work with both standard and high energy flexible magnetic sheeting.



Industrial Magnetizers: Flexmag manufactures several industrial units in widths from 13" up to 26". These motorized magnetizers have a variable speed control that runs up to 145 feet per minute, and they will permanently magnetize substrates up to .060" thick - both standard and high energy.

An Important Note on Magnetizing: In order to allow easy processing after magnetizing, it is suggested that every other sheet is magnetized in a slightly different direction. This will insure that the magnetic poles do not line up from sheet to sheet, which can cause difficulty during the jogging process.

About Flexmag

Flexmag is the flexible magnet division of Arnold Magnetic Technologies. Founded in 1898, Arnold Magnetic Technologies is a leading global manufacturer of high performance, precision magnetic products for the aerospace, defense, medical, printing, automotive, and energy markets.

Flexmag is headquartered in Marietta OH, with plants in Ohio and Nebraska. Our primary products include high quality industrial application extruded magnets for the aerospace, medical, security, refrigeration, material handling, and automotive industries. In addition to this we also manufacture a full line of magnetic sheet and roll products for the promotional and graphics markets.

Running Pre-Magnetized Stock:

When running pre-magnetized substrates on wide format inkjet printers, any steel sections in the infeed that the magnet passes over should be covered with 10 pt card stock to prevent direct contact and sticking, as shown in this picture.



Latex Wide Format Printers: Latex inks need a significant amount of heat to dry quickly. Because the heavy magnetic base acts as a heat sink, the tendency may be to increase the heat setting to dry the ink. This may cause the magnetic base to soften, and the heavy weight of the stock may cause it to stretch. It is best just to use lower heat and allow the ink to air dry. For latex printers, we recommend either our Ultra-Mag Non-Top Coated Vinyl or Flexcoat-EZ.

Matte Coat: Unless requested otherwise, all of our magnetic substrates come with a clear matte coating on the back (contact) side. This coating prevents the magnet from permanently bonding to the host surface and allows trapped moisture to escape so any bare metal will not rust.

Magnet Thickness Recommendations for Various Applications:

The thicker the magnet, the more magnetic strength it has.

- Light duty use (low and standard energy paper) .009" to .013"
- Normal indoor use (fridge magnets) .012" to .018"
- Heavy duty indoor use (menu boards, signs) .020"
- Outdoor use (car signs, outdoor displays) .030"
- Extra heavy duty (industrial or double sided magnets) .045" to .060"

FlexCoat-EZ™ - an Alternative to Vinyl Lamination

Due to the inherent shortcomings of vinyl laminate, Flexmag has developed a new magnetic substrate with a printable surface coated directly onto the magnet. Since there is no glue or lamination involved, there is no delamination, curl, rough cut edges, or gumming up of cutting equipment. Additionally, trim scrap and used product is 100% recyclable and does not contain phthalates (plasticizers used in vinyl).

FlexCoat-EZ can be used for both indoor and outdoor advertising, banners, car signs, etc., and is available in both sheets and rolls, magnetized or unmagnetized.

Our standard FlexCoat-EZ product will work with wide format solvent, eco-solv, UV, and latex inks. We also have variations that are optimized for offset and digital.

FlexCoat-EZ is manufactured in the USA and is available exclusively from Flexmag

WARRANTY and LIMITATION of LIABILITY

Our products are warranted to be within specifications and free of defects, and we make no other warranty, either expressed or implied, as to the fitness of our products for a particular use or guaranty of merchantability.

When defects in quality are confirmed, our liability is limited to the cost of the product in question. We will not be liable for incidental, consequential, indirect or special damages, but these may be considered at our discretion.

Flexmag will not be responsible for the following:

- Presstime or other costs incurred in the printing and/or processing of questionable or known defective product
- Any decision that results in additional costs, unless pre-approved by Flexmag
- Any converting related problem if the product was slit, cut, or trimmed after leaving the plant
- Any special specification or requirement not communicated at the time of order entry
- Claims resulting from using our products in incompatible equipment
- Claims for damage to affixed surfaces (paint damage, rust, etc.)

CLAIMS

Claims for sub-standard product will only be considered if reported in a timely manner, and within six months of shipment from the plant. Claims for handling, transit, or damaged material will only be considered if noted upon delivery from the plant.

COMPLAINT PROCEDURE

All claims and complaints must be submitted with adequate samples and other evidence to substantiate the problem, as well as full product description, order number, customer and end user contact information, complaint description, and the full production lot number.

COMPLAINT RESOLUTION

Upon determination of a quality defect, we will either replace the product or issue credit at our discretion, and determine disposition of the defective product. No product will be accepted at the plant without prior authorization.



Responsive ● Innovative ● Quality Driven

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ARNOLD[®]
MAGNETIC TECHNOLOGIES