

# Flexible Rubber Magnets

## NEODYMIUM MAGNETIC RUBBER TAPE

DATA SHEET



The Flexible Neodymium Magnet is currently the strongest flexible magnet in the world. These flexible magnetic tapes come with a high-strength 3M self-adhesive backing. The tapes are designed to be adhered to one surface with the self-adhesive backing leaving the magnetic face exposed to attract magnetic, metal-based materials. As the tapes have a striped North- South magnetic field (every 3 millimetres) it means that double the pull strength can be achieved by using tape-to-tape attraction. All our Neodymium magnetic tapes have a pull force of 400g per cm<sup>2</sup> when attracting a steel surface and can operate at temperatures up to 100°C.

A tip for putting tape on tape successfully (to avoid repulsion problems): - Peel away the first tape adhesive protector and place and press in required location to adhere. Put the second tape on top so it is aligned magnetically. Peel away the adhesive protector of the second tape and press the item you want to be held by the tapes onto the second tape to adhere. This guarantees perfect magnetic alignment every time when removing and replacing the items being held magnetically. If not done this way, there is a chance that the poles on each tape may be aligned in a repulsive state.

Flexible magnetic tape and flexible magnetic sheet are easily cut to size with normal scissors, craft knife, Stanley knife or a guillotine. They are also flexible, allowing them to follow gentle contours and curves.

### Physical Properties

Tensile Strength	Mpa	>2
Elongation	%	20-80
Hardness	Shore D	20-80
Density	g/cm <sup>3</sup>	4.7-5.5
Weight reduction by heat	%	<1

### Reliability

(100 °C x 72h) Heat-Resistant	**
(-40 °C x 72h) Cold-Resistant	***
(60 °C x 90% RH x 72h) Wet-Resistant	**
(23 °C x 72h) Motor Oil Resistant	**
((-40 °C - 85 °C) x 1h x 24/Cycle) Cold-Heat Impact Resistant	**
(35 °C x 5% NaCl x 24h) Salt Spray Testing	**

\*\*\*= Excellent \*\*= Good \*=Acceptable X=Bad

### Magnetic Properties

Residual Induction (Br)	kGs	5.5-6.5
	T	0.55-0.65
Coercivity (Hcj)	kOe	4.5-5.5
	kA/m	350-440
Energy Product ((BH) max)	MGOe	4.5-5.5
	kJ/m <sup>3</sup>	36-44
Temperature Coefficient of Br	%/ °C	-0.17
Flux Irreversible Loss	%	<6
Max Operating Temperature	°C	100

Part No.	Dimensions	Pull Force
EP663	12.7mmW x 0.85mmA - Adhesive Backed	400g per cm sq
EP664	19.0mmW x 0.85mmA - Adhesive Backed	400g per cm sq
EP665	25.4mmW x 0.85mmA - Adhesive Backed	400g per cm sq

Available in quantities of 1, 5, 10 and 20 Meters.