

FUN WITH MAGNETS

A PRACTICAL (BUT VERY UNSCIENTIFIC) BOOK ARTS GUIDE TO MAGNETS

by Julie Chen

At Flying Fish Press, we have been using magnets for box and book closures for the past several years. I use the kind of sheet magnet that is used to make signs that will stick to the sides of trucks. It comes in 24 " wide rolls and can be found at most sign shops. I usually buy mine from Tap Plastics (www.tapplastics.com). We usually bond strips of magnet to a thin board with PVA so that the thickness of the magnet/board combination will equal the thickness of the other boards used in the piece.

Sheet magnet used for signs has a glossy white coating on one side, and is dark brown on the other side. Always mate the dark brown sides together and laminate the white side to the board. However, be sure to peel off the white coating before laminating as the adhesive used to glue the white coating to the magnet is probably not something you want to have inside your book or box..

AN IMPORTANT WORD ABOUT GRAIN

All sheet magnet has a grain (my terminology) meaning if you cut out a strip in one direction on the sheet, it will not stick to a strip that was cut in a perpendicular direction. Also note that magnets cut with the grain will have a stronger bond than magnets cut against the grain.

Magnets must be indexed (my terminology) or mated in order to bond together precisely. In other words, do not expect two strips of magnet that are cut to the exact same dimensions out of the same sheet and in the same grain direction to stick to each other exactly where you want them to. You must cut one strip out of the sheet first and then place it on the sheet brown side to brown side. As it gets close to the sheet, the magnet strip will be pulled onto the sheet in a position of strong attraction. Try to gently slide the strip to the right or left on the sheet. It may move slightly to a position of stronger attraction. Once it is in a position where it no longer slides, cut out the second strip so that it is mated with the first. When cutting, it helps to use a steel ruler that will stick the sheet magnet. Simply place the ruler snugly against the strip, then peel the strip off and cut out the mated strip using a sharp blade.

There will be frequent intervals along the sheet where the strip will find a position of strong attraction. Choose an area of the sheet that will leave the least amount of waste to start the search.

Once you have a pair of indexed, or mated, magnet strips, they will stick to each other even if they are not aligned exactly with the grain. In other words, if one strip is offset slightly up or down, the attraction will still be strong. However, if the strips are offset sideways, even by as little as 1/32", the attraction will be significantly weakened.

PVA works well to bond magnets to board. The surface of the magnet to be glued can be sanded lightly to ensure a good adhesive bond.