

A Method For Making Foldable Encapsulations For Storage of Folded Objects

Many libraries and archives possess oversized paper objects that are lined with linen or other cloth, and stored folded. Such materials include maps, illustrations, posters, or panoramic photographs. Often times it is impractical to find oversized flat storage for these large objects, once unfolded due to space limitations. It may also be difficult and potentially damaging to serve these items to researchers unfolded. Encapsulation is one answer for protecting these items for handling and storage but a joint must be created to allow the encapsulation to fold along with the item. This method includes a cover for the joint rather than an open joint, protecting the item from open exposure at any point, while not blocking any of the visual information.

Tools needed for this process include a heat welder, scissors, utility knives or scalpel, plenty of replacement blades, a cutting surface, a square, some weights, and a long metal straight edge. Materials needed include a roll of 5 ml. polyester film, 20 point backing board in large sheets or a roll (and that has passed the Photo Activity Test if used with photographs), 1/4" roll double coated pressure sensitive tape that has a polyester film carrier and a 100% acrylic adhesive (i.e. no tackifiers or plasticizers), 1/4" roll of single sided tape with the same characteristics, a small roll or sheets of 1 ml. polyester film, white, non woven, spun bonded polyester web in .0025" and .0065" thickness, (Hollytex 3221 recommended), and pressure sensitive hook and loop buttons (Velcro).

Begin the process by measuring the object. Add 2-3 extra inches to the object measurement and cut two pieces of 5 ml. polyester film and one board to size. Line up the two sheets of polyester film along the straight. even length and weld the two pieces together. This is now the bottom of the encapsulation jacket.

Determine the folding joint in the object and find the same spot on the board and the encapsulation jacket. Square this point with the welded edge of the jacket and make a straight vertical cut. Cut the board at this

point as well. Keep in mind that the polyester film will be 1/8" and the board will be 3/16" away from the joint on either side to allow the object to fold. Below the joint will be a strip of the .0025" polyester web and on top of the joint will be a strip of the 1 ml. polyester film with the object joint sandwiched between. Cut a 1 3/4" strip of the polyester web and 1 ml. film to cross the width of the joint making sure the short edge is cut straight and square with the bottom of the encapsulation jacket.

Line up the welded edge of the film jacket with the metal straight edge and separate the jacket joint cut 1/4". With the scalpel, cut the weld 3/4" on either side of the gap to slip in the joint material. Apply the double coated pressure sensitive tape down the length of the back of each side of the .0025" polyester web leaving enough margin for cold flow of the tape. Place this inside the jacket joint. You will be welding the web and the 1 ml. film into the bottom at the joint. Remove backing on tape once strip of web is in place. Place the strip of 1 ml. polyester film on top of the strip of web on the inside of the jacket again lining up to the welded edge and tape into place with the single coated pressure sensitive tape on top. The single coated tape will be removed once the encapsulation is complete. Be aware that you are leaving a 1/4" gap at the joint in the polyester film to fold the object. Weld the thin film and web into the bottom edge of the jacket.

Cut the board 1/4" larger than the object on all sides. Record any cataloging information on the back; of the board and place three to four diagonal strips of the double coated tape across the entire back of the board to attach it to the inside back of the encapsulation jacket. Place the board in the jacket leaving a 3/8" gap between the boards at the joint and remove the paper backing on the tape when boards are in place.

Cut the polyester jacket 1/4" larger than the board on the three remaining unsealed edges to leave room for the weld.

Insert the object with the folding joint of the object aligning with the joint created in the jacket. Weld the three remaining open sides. Remove the single coated pressure sensitive tape.

Measure the back and the front of the object and cut the .0065" polyester web to this length with an additional 2 inches on either end to fold on to itself. Cut the width of this strip 2". Apply the double coated tape to the back of the encapsulation where this strip will go. Remove the backing paper and apply the strip. Apply a pressure sensitive loop with hook attached to loops at one end in the front of the strip. Over lap the other end of the polyester web and pull slightly taut. Remove the paper backing on the hoops and attach this to the other end of the polyester strip. This should complete the closing storage belt on the outside.

Any further questions about this process may be directed to the author at (202) 707-1159 or at ccra@loc.gov.

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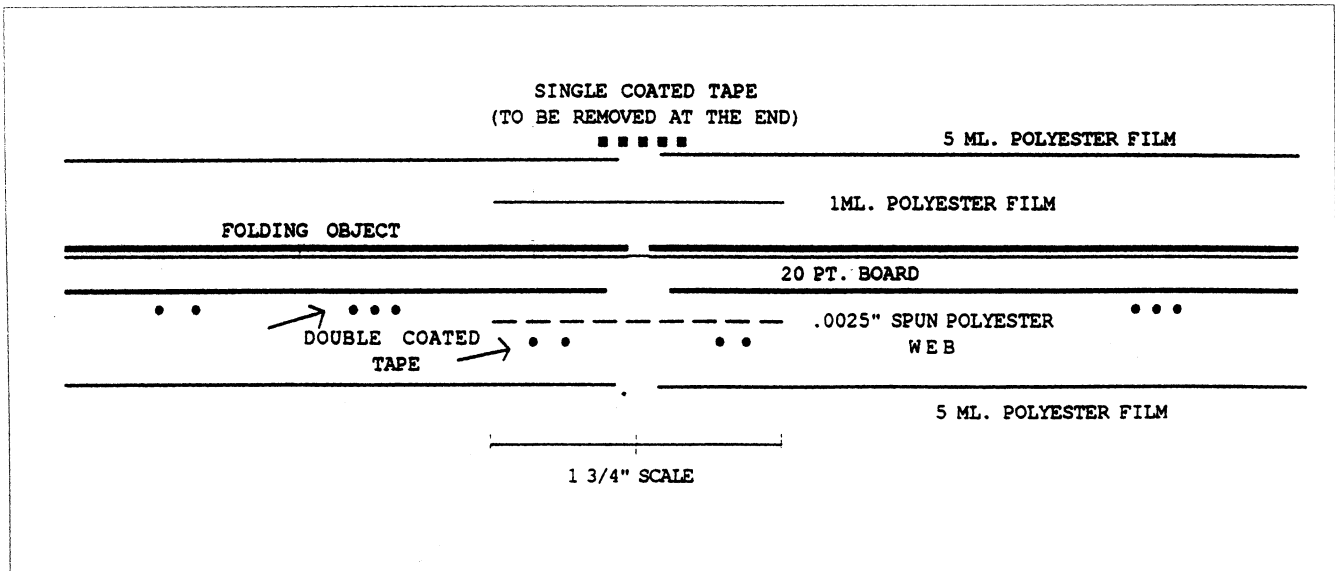


Fig. 1. Cross section of the joint on foldable encapsulation