

Using your Noodle: Use of foam tubes and rods for the storage and display of textiles

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Abstract

The successful rolling of textiles, particularly curtains which are often lined and occasionally gathered, is never easy and the linings are easily creased. This difficulty led to the development of a flat roller system that allows a textile to be rolled much more successfully. Foam rods are used in the construction of the flat rollers. These flat rollers are also easily boxed into standard costume boxes and this provides a relatively cheap, safe and standard method for the storage of flat textiles. Foam rods and tubes can also be used effectively to cover dowels for display and for padding the edges of 2-D forms for costume.

Introduction

The textile laboratory at Artlab Australia is responsible for the storage and display preparation of a wide variety of textiles belonging to diverse clients ranging from major state collecting institutions to private clients. The textiles lab is always seeking new ways of meeting the enormously varied needs of these clients.

Flat Rollers

The Art Gallery of South Australia has an extensive textile collection. The collection includes a large number of Morris & Co curtains. These curtains are usually lined and occasionally gathered at the top. Historically they have been stored rolled. Rolling these items for storage is often difficult. When they are rolled the linings are easily creased. Many curtains have thick braid and fringing along the edges which makes straight rolling difficult. Curtains which are gathered cannot be successfully rolled and are generally padded and folded into a box.

During packing of Morris textiles for the Morris & Co touring exhibition we were keen to find an easier way to pack the textiles and to pack as many items as possible into a standard size Albox™ costume box. After some experimentation we determined that the use of a flat roller

which was then placed in the Albox™ box was a very effective and easy way to pack the textiles.

A flat roller is oval in cross-section and is made up of a light-weight board with padded edges. Initially cardboard rollers were used to pad the edges of the board but the finished flat roller tended to be heavy. So when searching for an alternative to pad the edges polyethylene pool noodles, commonly used as a flotation device for children, were discovered at the local Clark Rubber store. These noodles were 75mm in diameter, 1.5 metres long and cheap to buy. They are made from expanded polyethylene foam, a well known and commonly used foam in conservation, and come in a range of cheerful col-

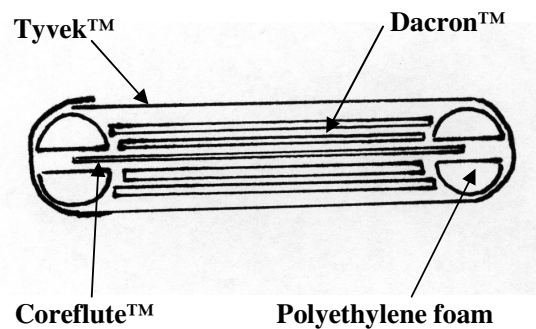


Figure 1: Diagram of the cross-section of a flat roller

ours. The dyes are water fast and inert.

Initially these were cut longitudinally by hand and clipped onto the edge of the board. This was not a particularly easy process and being determinedly lazy an easier method was found. The rods are cut in half longitudinally using the band saw and then hot-glued to the edges of the board. The void between the rollers is filled with 2 layers of Dacron™ each side and then the whole lot is covered with Tyvek™ which is secured with double sided tape. For rolling an interleaving layer is placed on the textile, the textile is rolled around the outside of the flat roller and placed into an Albox costume box. Two flat rolled textiles can be placed into one costume box. For gathered textiles they are rolled from the bottom up and the gathered section sits on top of the flat section, only one



Figure 2: Textile being rolled onto a flat roller

gathered curtain can fit into an Albox costume box.

When using this system the linings of the curtains are not creased. It is also much easier to roll a textile with thick braiding. A flat rolled textile also fits snugly into a costume box which provides additional physical protection and a standard size.

Padding Dowels

Foam rods can also be used to pad dowels for display. A hot poker tool commonly used for poker work on wood can be used very effectively to cut the centre out of a noodle. A wire fashioned to the desired shape of the hole is attached to a poker tool. This is then passed longitudinally through the noodle to cut or melt out the centre. The noodle can then be very eas-

ily clipped over the dowel. The foam can be quickly covered with fabric by stretching the fabric over the foam and adhering it in the channel. The ends can be covered with discs of matt board or fabric. Padding the dowel with the foam noodle is relatively quick and it makes for a soft and light but firm hanging rod with quite a wide diameter. The dowel inside gives it good strength and also allows it to be attached to a stand if required.

The discovery of pool noodles sent me on a search for other expanded polyethylene foam products. Suppliers for different diameter rods and tubes have been found and white foam has been purchased so the cheerful colours of pool noodles have sadly been lost. I also discovered that the Australian War Memorial (AWM) Textile Conservation staff have been using various expanded polyethylene rods and tubes.

2-D Forms

One of the products that the AWM staff told me about was an expanded polyethylene tube commonly used for insulating refrigeration pipes. When ordering tubes they are described by the size of the hole or internal diameter (mm ID) and the thickness of the wall (wall mm). The tube recommended by the AWM has a 15mm ID, a wall thickness of 7mm and an approximate overall diameter of 30mm.

The Art Gallery of South Australia has recently acquired a Chinese robe. The curator wanted to display the robe on a 2-D form attached to a fabric covered backboard in a way similar to that used by the National Gallery of Australia textile conservation staff for the display of textiles in the recent Crescent Moon exhibition. The Chinese robe has straight shoulders and long sleeves with a total width of 2240mm.

The 2-D form for the robe was constructed from Coreflute™ board. Along the top edge of the Coreflute™ form a 15mm diameter dowel was adhered in place using hot glue. The polyethylene foam tubing was cut along one side and then clipped over the dowel/form and secured with hot glue. The dowel provided additional strength and support to the top edge and the foam tubing provided a soft but firm padded edge and an isolating layer for the dowel. Other edges of the form that were in contact with the

robe were padded by clipping the foam tubing over the edge without the dowel. Inner edges of the Coreflute™ form that were not directly in contact with the robe but required some padding, particularly as the form is eased into and out of the robe for fitting were padded by adhering 6mm diameter foam rod to the edge of the Coreflute™. The form was further padded with Dacron™ where required and then covered with fabric. I found the tubing was extremely easy to use and it is very effective in providing

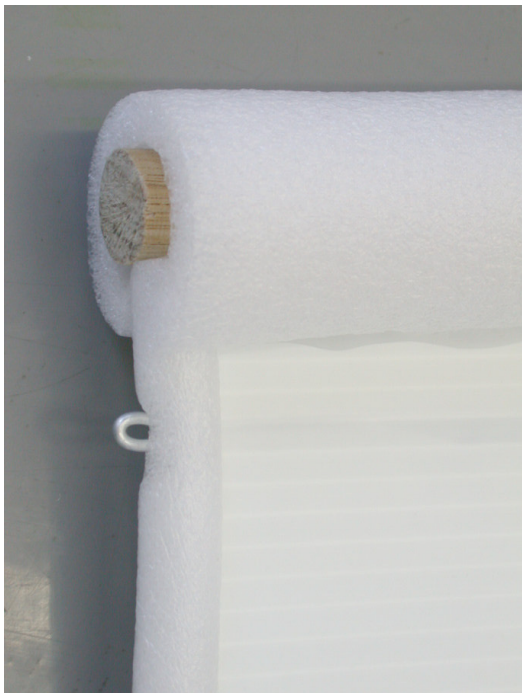


Figure 3: Detail of 2-D form showing dowel encased in foam tube and foam rod adhered to the edge of the Coreflute™

a firm but soft curved edge. The form for the robe worked well to achieve the look desired by the curator.

Other Foam Rods

There are many other diameters of expanded polyethylene rod on the market (these are listed under Materials). It is worth noting that all of these products will have an unidentified slipping agent on the surface. You will note that they feel slightly greasy to the touch. This agent seems to be able to be removed with white spirit but this is a time-consuming activity. The slipping agent is in very small quantities and is unlikely to be harmful, however, it is recommended that any foam product not be placed

directly in contact with a textile and should always be covered with an isolating layer. For storage, tubing made from stretch knit cotton can be quickly made and easily fitted over rods. Pantihose are also good as a quick cheap alternative.

Many of the smaller diameter expanded polyethylene rods are commonly available from hardware stores and are sold as gap filler rod. The AWM uses some of these different diameter rods in a variety of ways for storage. They include padding out the fingers of gloves, padding out the crowns of military hats and berets and as cores for small ribbons and tally bands. In the past large textiles such as tents that are folded for storage have been padded with Dacron sausages. Polyethylene rods provide a faster and easier alternative. Foam rods have been very successfully used at Artlab to pad out a rubber and canvas diving suit belonging to the South Australian Maritime Museum. They are also cheap and easily purchased by the general public, and so provide an additional resource for private individuals seeking appropriate materials to assist with the storage and display of their textiles.

Aeroflex™

All of the foams so far mentioned are made from expanded polyethylene foam. Another product that is available on the market is called Aeroflex™. This tubing is also used commercially for the insulation of pipes. It comes in a wide variety of different ID and wall sizes up to a 50mm wall thickness. It is made from EPDM – ethylene propylene diene monomer. I contacted Jean Tetreault, Senior Conservation Scientist at the Canadian Conservation Institute, and he reviewed the MSDS sheet and stated that it has no sulphur and that the release of acids would not be a concern. As a further test Alana Lee of the National Archives of Australia was approached to carry out Photographic Activity Tests (PAT). PAT tests determine the suitability of materials for long term photographic and paper storage. The foam passed both the stain and image interaction tests with flying colours.

The information from both sources suggests that Aeroflex™ is a safe foam for use in conservation although obviously further testing would

be advantageous. I have acquired some of this product and I think that it has some potential. It is much more flexible than polyethylene foam tubes or rods and it comes in larger diameters. However, it only comes in black and is coated with talc so that it is easier to slide onto pipes. The talc can be cleaned off but it is a distinct disadvantage. I have yet to use this product but as there is a very limited range of thicknesses of polyethylene foam tubing on the market (so far I have only found the one already mentioned with 15mm ID and 7mm wall), Aeroflex™ has potential for use for padding of dowels.

Conclusion

Foam rods and tubing are an incredibly useful resource to assist with the storage and display of textiles. These products can be used for an infinite variety of tasks and provide a cheap, quick and often more effective product to achieve desired outcomes. The use of flat rollers constructed partly from foam rods provides an alternative technique for the storage of textiles that are difficult to roll either due to linings, the presence of braid or gathering. Flat rolled textiles also pack well into boxes which can be advantageous for particular situations. Foam tubing, either ready made or cut with a poker work tool, provides an easy solution for padding dowel and the edges of 2-D forms. Other diameter foam rods can be used for a huge variety of tasks where a textile requires padding. The pool noodles and some of the smaller diameter rods that are commonly available in hardware stores are also easily purchased by members of the public providing an additional cheap resource to assist in the storage and display of family textiles.

Keywords

Expanded polyethylene foam tubes, Expanded polyethylene foam rods, flat rollers, Aeroflex™

References

Jean Tetreault, 2006, *AICCM Workshop: Guidelines for Selecting Display and Storage Products*, Adelaide

Materials

Pool Noodles

Clark Rubber Stores

Expanded polyethylene foam
75 mm diameter (D) rods

Rods

Thermotech

168 Carrington Street
Revesby NSW 2212
Ph 02 9771 6400
Fax 02 9771 6466
Expanded polyethylene foam
White rods 50 mm D X 1500mm length (L)

CE Industries

30 Geelong Street
Fyshwick ACT 2609
Ph 02 6280 6010
Fax 02 6280 7220
Expanded polyethylene foam
50mm D X 2000mm L, 25mm D X 50m L,
20mm D X 60m L, 15mm D X 100m L,
13mm D X 150m L, 10mm D X 250m L,
6mm D X 250m L

Bunnings Hardware

Moroday Gap Filler Rods
Expanded polyethylene foam
15mm D X 10m L, 10mm D X 10m L,
6mm D X 10m L

Tubes

Mick Ffrench Pty. Ltd

Unit 29 Molonglo Mall
Newcastle Street
Fyshwick ACT 2609
Expanded polyethylene foam
ID 15mm x wall 7mm

Airefrig Australia

10 Wirriga Street
Regency Park SA 5010
Ph 08 8345 2201
www.airefrig.com.au
Aeroflex - ethylene propylene diene monomer foam. Huge range of tubes with an ID size of 6mm to 165mm and wall size from 6mm to 50mm.

Others

Albox Australia

56 North Terrace
Kent Town SA 5067
Ph 08 8362 4811
Fax 08 8362 4066

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About the Author

Kristin Phillips holds a Bachelor of Applied Science from the University of Canberra and is presently the Principal Conservator of Textiles at Artlab Australia where she has been employed for 18 years. She is responsible for the conservation of textile collections belonging to the Art Gallery of South Australia, the South Australian Museum, the History Trust of South Australia, the State Library of South Australia and Carrick Hill. Textile conservation for private individuals is also part of her brief.