

# ENERGY FACTS

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## How to Make Insulated Roman Shades

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A roman shade is a tailored window treatment that folds up as a cord is pulled. Compared with draperies, it requires a lesser amount of fabric. When made with a fiber-fill batting and a vapor barrier, and mounted to fit tightly at the sides, it provides insulation from heat and cold. With one layer of bonded fiber-fill, the R-value (heat resistance) may be 2.5, and with two layers an R-value of 4.0 can be achieved.

Roman shades are easy to construct. Tucks provide a place to attach rings on the back so that the shade will "stack up" sharply, forming an accordion pleat.

### Materials and Supplies Needed

1) Firm decorative fabric. Avoid plaid or horizontal stripes. To calculate the amount of fabric needed, add 4 1/2 inches (11.5 cm) to the window width and determine the length by adding 3 inches for the bottom hem, and the amount taken up by the tucks. Tuck allowance is determined by dividing the finished length by 6 and then multiplying this number by 3/4:

$$L \div 6 \times 3/4 = \text{allowance}$$

For example, if the finished length is to be 72 inches (1.8 m), divided 72 by 6 = 12 x 3/4 = 9 inches (22.9 cm) allowance. Thus, the length of fabric needed is 72 + 3 + 9 = 84 inches (2.13 m).

2) Lining, fiber-fill and plastic for vapor barrier the same width and length as the decorative fabric.

3) Thread to match fabric.

4) Plastic rings - 1/2 inch (1.3 cm) diameter, to be placed about 10 to 12 inches (25.4 to 30.5 cm) apart widthwise, and 12 inches (30.5 cm) apart lengthwise.

5) Cord such as that used for venetian blinds, or nylon cord.

6) Decorative pull for cord.

7) Screw eyes for traverse cord - select one large enough to hold four cords.

8) Awning cleat to fasten the cords to when the shade is pulled up.

- 9) Slat or rod for the bottom of the shade casing.
- 10) Dressmaker's chalk.
- 11) Optional: Slide clamp (1 x 2's) and hinges to help fit the shade tightly at the side.

### Method of Construction

The directions given here are for using two layers of fiber-fill. If only one layer of fiber-fill is used, be sure that the plastic vapor barrier is next to the decorative outer fabric.

1) Cut the fabric, lining, plastic and fiber-fill batting the correct size. Press the fabric and lining.

2) Lay the fiber-fill batting on a table, cover with plastic and another layer of fiber-fill. Lay the decorative fabric right side up on the fiber-fill. Lastly, lay lining, wrong side up, on top of the decorative fabric (*Figure 1*). Pin lengthwise edges first, then continue with the remainder.

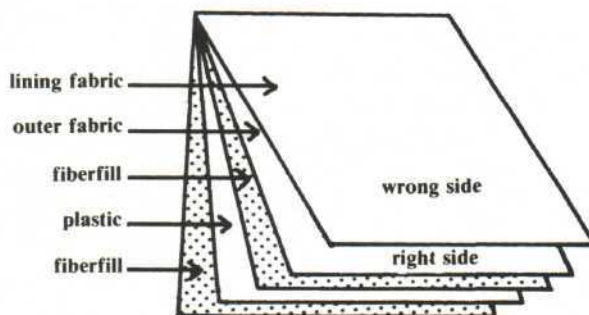


Figure 1. Layers of fabric to be stitched.

3) Baste sides and bottom through all layers, starting at the bottom edge. Use one inch (2.54 cm) seam allowance. If an acrylic backed lining is used, stitching may be difficult. Use tissue paper on top or have the batting on top for easier stitching.

4) Trim corners diagonally. Grade bottom and side seams by trimming fiber-fill to 1/4 inch (6.35 mm), decorative fabric to 1/2 inch (1.27 cm) and plastic to 3/4 (1.91 cm).

5) Turn shade inside out so that decorative fabric and lining are right side out. Place your finger inside the shade and adjust the seams so that the seam line is in the fold line. Pin in place.

6) On the decorative side of the fabric, top stitch 1/8 inch (32 mm) from fold beginning across the bottom and continuing up the sides from bottom to top.

7) Fold and stitch 2 inches (5 cm) from the bottom hem to form a casing in which a rod or slat is inserted for weight.

8) Mark horizontal lines across the lining side with chalk starting 6 inches (15.2 cm) from hem. Continue marking 6 inches (15.2 cm) up the entire shade. Sew on chalk lines across the panel (Figure 2).

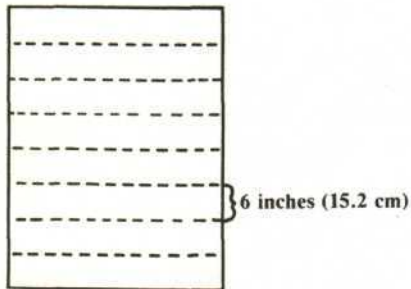


Figure 2. Stitch lines for tucks.

9) Make the first tuck by folding on the stitched line, lining sides together, and stitching on the decorative side. Sew through all thickness forming a narrow tuck about 1/4 inch (64 mm) wide.

10) Turn the panel over and stitch a tuck on the back by putting decorative sides together and stitching on the lining. Continue stitching tucks, alternating front and back.

11) Sew plastic rings to each tuck on the lining side, 1/2 inch (1.3 cm) from each edge. Space two additional rows of rings on lining side. If the shade is very wide, three rows may be needed.

12) Check the shade length at the window. Trim top edge of shade if necessary.

13) Stitch lining, batting, plastic and decorative fabric together at the top. Fold shade top over board and staple. The top may also be installed with Velcro strips or snap tape.

14) Attach screw eyes on the back directly above each row of rings, staggering each a little lower (Figure 3). Use the large screw eye at the top right corner on the board.

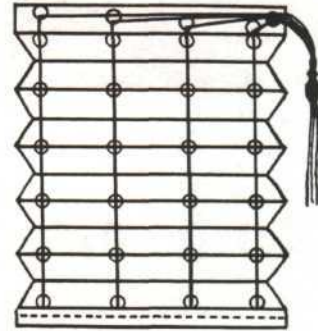


Figure 3. Assembled shade.

15) Fasten a cord to the first ring at the bottom of the shade and thread it through one row of rings to top of shade, then through the screw eye. Thread cords in this manner through all rows of rings.

16) Draw all the cords through the larger screw eye on the end, with each the proper length to raise the shade evenly. Extend one of the cords down 5 inches (12.7 cm) past the bottom of the shade. The other three cords should extend 4 inches (10.2 cm) beyond the large end screw eye. Hand sew all cords together about 2 inches (5 cm) beyond the corner screw eye (Figure 4).

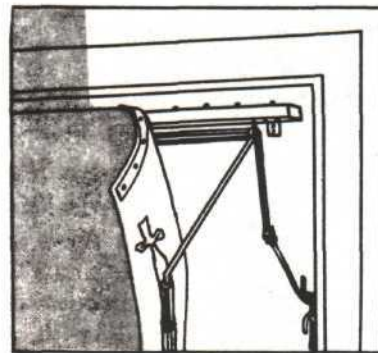


Figure 4. Shade installation.

17) Using the long cord, make a knot to cover the hand stitching. Attach a decorative pull on the end. Insert a slat in the bottom hem and hang the shade.