How to Prepare Outside Panels for Greater Flexibility in Smaller Radius Walls

This Technical Bulletin is prepared as a companion piece to NUDURA's Technical Bulletin on Radius Wall Estimating and Installation.

NUDURA insulation panels are sufficiently flexible that radius walls as small as 8 feet (2.44 m) in radius dimension can be formed with little difficulty in bending them to meet the required curvature. However, on the occasions where radii are smaller than this, it will be necessary to prepare the outer panels prior to installation to enable greater flexibility for being able to be installed to the desired radius.

Preparing the outside panel to bend to the required radius is very simple. Start by placing the radius form unit on a flat surface with the cut lines of the exterior panel facing up. Then, use NUDURA's 1" (25mm) fiber tape, cut 4 lengths of tape - each being 8 feet (2.44m) long. Apply the strips of tape linearly across the panel length, spaced 3" to 4" apart, and press each strip firmly onto the face of the panel. The fiber tape will provide excellent support during bending of the form and, subsequently, during placement of concrete into the assembled form.

Greater flexibility of the form is achieved by cutting grooves into the interior "dovetailed" surface of the exterior panel or the form at regular intervals. NOTE: Avoid making these cuts using a hot knife as melting the foam in this manner can change its molecular structure at the knife contact area - making it more brittle and substantially lowering the flexural strength of the foam panel between webs.

You will also need a cordless circular saw with a 5 ¼" (133 mm) non-carbide tip blade for this operation. Before mounting the blade into the saw, the blade must be prepared for making a wider than normal cut by using pliers to incrementally bend every other tooth of the blade outward off axis in opposite directions such that the width between the tips of each tooth is laterally measured at about 3/16" (5mm).

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