

Application instruction for 3MTM prismatic film 3430

Hand Application

Hand application is recommended for legend and copy only. Application of sheeting for complete signs or backgrounds must be performed with a roll laminator, either mechanical or hand. Hand applications may result in visual irregularities that may be aesthetically objectionable to some customers. Such irregularities are more noticeable on darker colors. To obtain a close-up uniform appearance, a roll laminator must be used. All direct applied copy and border **MUST** be cut at all metal joints and squeegeed at the joint.

Splices

Series 3430 sheeting should be butt spliced when more than one piece of sheeting is used on one piece of substrate. The sheeting pieces should not touch each other at the splice, where a gap of up to 1/16 inch is acceptable. This is to prevent buckling as the sheeting expands in extreme temperature/humidity exposure. If the visual appearance of the splice is important or a slight gap is undesirable, the following procedures must be followed: 1. Overlap the sheeting at least one inch, with or without the liner attached. 2. Using a straight edge and a sharp utility knife, cut through both layers of reflective sheeting. 3. Peel back and remove cut remnants. If liner was left on, remove and roll down remaining sheeting. 4. Seal edge with thinned 3M™ Process Color 880I Clear using a fine artist paintbrush. Double Faced Signs - Series 3430 sheeting can be damaged by direct exposure to steel laminating rolls. When fabricating double-faced sided signs, a piece of cardboard must be placed between the sheeting and steel laminating roll. The Highway Handyman 12" HSRA is equipped with rubber top and bottom rolls that will prevent any damage the sheeting.

Substrates

For traffic sign use properly prepared sheet or extruded aluminium is recommended. While most clean, smooth, relatively non-porous, flat, rigid, weather resistant surfaces can be prepared for application of retroreflective sheeting, the user must evaluate any substrate other than aluminium for adhesion and sign durability. 3M is not liable for sign failures caused by the substrate (deformation, outgassing, cracking, warping, etc. leading to cosmetic or functional failure of the sign sheeting) or improper surface preparation. Extrusions can be wrapped or trimmed, and flat panel signs are to be carefully trimmed so that sheeting from adjacent panels are not in contact with each other. Series 3430 sheeting is designed primarily for application to flat substrates. Any use that requires a radius of curvature of less than five inches should also be supported by rivets or bolts. Plastic substrates are not recommended where cold shock performance is essential.

Cutting and Matching

The sheeting may be hand cut or die cut one sheet at a time, and band sawed or guillotined in stacks. Series 3430 sheeting can be hand cut from either side with a razor blade or other sharp hand tool. Like all reflective sheetings, when two or more pieces are used side by side on a sign, they must be matched to assure uniform daytime and nighttime appearance. Cutting equipment such as guillotines and metal shears, that have pressure plates on the sheeting when cutting, may damage the optics. Padding the pressure plate and easing it down onto the sheets will significantly reduce damage. Maximum stack height for cutting Series 3430 sheeting is 1-1/2 inches or 50 sheets. Note: If direct copy is cut with a friction fed plotter, a minimum 550 gm downforce is required. When used as background, sheeting should be oriented identically across all panels or pieces of the sign for uniform appearance of sign background (the seal pattern or tiles in the same direction).

Edge sealing

Series 3430 sheeting is generally not required. Following extended exposure, airborne dust particles may become trapped within the row of cut cells along the sheeting edge. This should have no adverse effect on sign performance. If the user chooses to edge seal, series 880i process color should be used.

The instructions are solely based on information provided by the manufacturer. Therefore, we assume no liability for the correctness of the content.