

# Directions for preparing polyethylene using flame treatment.

1. Fit a propane torch with a "flame spreader" tip attachment.
  2. Following the operating cautions of the propane torch, ignite the flame.
  3. Observe the flame in a darkened room, noting the primary (bright blue) and secondary (faint yellow) portions of the flame (see drawing.)
  4. Adjust the flame so that the primary flame is contained within the spreader, and the secondary flame is 1 1/2" beyond the spreader (see drawing.)
  5. Treat the polyethylene recess area with the tip of the secondary flame by passing it over the polyethylene in gentle sweeping strokes. Total exposure to the flame should be a half of a second per stroke. This light exposure should not deform or melt the polyethylene in any way. Let the surface cool for 3 or 4 minutes before applying vinyl.
  6. Test the polyethylene for bond readiness by wetting it with water. If the water runs off immediately, the treatment was not effective. If the water sheets on the surface, the surface is ready for bonding. If unsure, compare the water's action on treated area with the untreated area.
  7. Apply a FULL Sheet of adhesive Vinyl Sheeting per the above directions within 1 hour after flame treating. In addition to flame treating, 3M recommends wiping the sign recess area with ISOPROPYL ALCOHOL within 20 minutes of flame treating to insure positive adhesion. If you wish to apply cut out letters or shapes to the sign, you would then apply them to the full sheet of vinyl. We do not recommend direct application of cut letters or shapes to the polyethylene, as the surface area of adhesive is not sufficient to ensure a permanent bond to the plastic.
- Additionally, the large amount of cut edge on individual letters leaves the edges vulnerable to peel-off, unless firmly affixed to a larger sheet of material. Don't take chances with your hard work peeling off after your customer has had the sign for a While!
8. Now, you're DONE! Step Back and ADMIRE your sign!

