



Certified Welding Technician (CWT) Program / Polyethylene Materials List

Materials needed:

It is the responsibility of the company requesting certification and/or the testing candidates to provide the equipment and geomembrane materials used for the hands-on test.

The following is a list of specific Polyethylene materials with required mil thickness, surface type, and size for **each** test candidate. A minimum of one set per test candidate is required. Additional pieces of each material is suggested as a test candidate is allowed to weld 3 seams of each material prior to submitting one. Substitutions for geomembrane types / mil thicknesses are allowed only upon written approval from IAGI prior to test date:

Wedge Welding Hands-on Test:

- 1 piece of **40 mil (1.0mm) smooth LLDPE or VFPE** geomembrane, 12" wide X roll width.
- 1 piece of **40 mil (1.0mm) smooth HDPE** geomembrane, 12" wide X roll width.
- 1 piece of **60 mil (1.5mm) textured HDPE** geomembrane, 12" wide X roll width. (must be textured all the way to the edge).

Extrusion Welding Hands-on Test:

- 1 piece of **40 mil (1.0mm) smooth LLDPE or VFPE** geomembrane, 12" wide X roll width.
- 1 piece of **60 mil (1.5mm) smooth HDPE** geomembrane, 12" wide X roll width.
- 1 roll of LLDPE or VFPE welding rod in appropriate diameter for extrusion welder used for test.
- 1 roll of HDPE welding rod in appropriate diameter for extrusion welder used for test.



Materials for the Hands-on Test

Equipment Needed:

- Wedge welder (if applicable)
- Extrusion welder (if applicable) and welding rod as noted above
- Any tools needed for adjusting and/or fixing the welders in the event of machine failure
- Hook blade or similar for cutting geomembrane liners
- Field Tensiometer (one unit for every 4 test candidates is recommended)
- Test coupon cutter (Bone-Cutter)
- Writing implement for marking geomembrane samples

Each candidate should be given 1 piece (strip) of material, of various thicknesses, from the geomembrane pieces provided and instructed to cut approximately 11.5 feet long.

If the material is pre-cut the testing will go faster. Extra stripes of geomembrane are recommended