



SKAPS INDUSTRIES

HDPE & LLDPE Geomembrane **Installation Guideline**



1. INTRODUCTION:

This guideline provides an overview of installation procedures of HDPE and LLDPE geomembrane consistent with industry accepted practices to ensure the installed geomembrane products will perform its intended purposes. All installation work shall be performed as per project specifications.

2. MATERIAL DELIVERY, STORAGE AND HANDLING:

- a) Verify that manufacturer labels must be on all rolls delivered to the project for manufacturer's name, product identification, material thickness, roll number, roll type, roll dimensions and roll weight.
- b) Protect the Geomembrane from mud, dirt, dust, puncture, cutting or any other damaging or deleterious conditions.
- c) Store all rolls on a smooth level surface. When necessary chocks the rolls.
- d) Any visible damage to rolls should be noted and reported to appropriate party.

3. PROJECT CONDITIONS:

- a) Subgrade for geomembrane shall be prepared and maintained as per project specification.
- b) Subgrade for geomembrane shall be uniform and free of sharp or angular objects that may damage the geomembrane.
- c) The Geomembrane Installer and Owner or his representative shall inspect the surface daily and accept the suitability before laying down geomembrane.
- d) The Geomembrane Installer must repair all subgrade damaged by construction equipment and deemed unsuitable for geomembrane deployment. All repair must be approved by owner or his representative prior to geomembrane deployment.
- e) Do not install geomembrane while precipitation, in the presence of standing water, during excessive wind, or when material temperatures are outside the specified limits.



4. GEOMEMBRANE PLACEMENT:

- a) The geomembrane installation shall follow approved Panel Placement Drawings with limits shown on the project drawings. Any changes must be approved prior to deployment of geomembrane.
- b) No geomembrane shall be unrolled and/or deployed when temperatures are below 0 degrees C (32 degrees F), unless approved by the Owner or his representative.
- c) Only deploy the geomembrane quantity anchored and seamed together in one day.
- d) Do not allow any vehicular traffic directly on geomembrane other than an approved low ground pressure vehicle.
- e) Drive any vehicle on geomembrane as straight as possible. No sharp turns, sudden stops or quick starts are allowed.
- f) Place sand bags as temporary ballast on geomembrane to prevent wind uplift.

5. FIELD SEAMING:

- a) Installation during cold weather shall follow guidelines as per GRI GM9.
- b) Field seaming shall not be performed when geomembrane temperatures are below 0 degrees C (32 degrees F) and above 75 degrees C (170 degrees F) unless approved by the owner or his representative.
- c) Field seaming shall be performed using automatic fusion welding equipment and techniques. Extrusion welding may be used where fusion welding is not possible such as at pipe penetration, patches, repairs and short (less than a roll width) runs of seams.
- d) Prior to seaming, make sure the area of welding is free of moisture, dirt and any foreign matters that can affect the integrity of the weld.
- e) Field seaming shall run from Anchor Trench to the end of the deployed geomembrane.
- f) Field seaming during extreme heat or cold needs to be performed only with appropriate precaution and safety of liner technicians.



6. DEFECTS AND REPAIR:

All seams and non-seam areas of the geomembrane shall be checked for defects and identify defect using following procedures:

- a) Any defect in the seam or sheet that has an actual hole shall be circled with appropriate marking to indicate a patch is required.
- b) Any defect in the seam or sheet has not an actual hole shall be circled with appropriate marking to indicate that a repair method may be only an extruded bead and that a patch is not required.
- c) Each suspect area that has been identified as repair shall be repaired as per (a) or (b).
- d) Owner or his presentative shall conduct a final walk-through to confirm all repairs have been completed and debris removed.

7. OTHER INFORMATION

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