Different applications for plastic sheeting

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**Definitions**

- It is a large sheet of strong, flexible, water-resistant or waterproof material, often cloth such as canvas or polyester coated with urethane, or made of plastics such as polyethylene.

- Several names for the same product: tarpaulin, tarp, PE sheet, HDPE / LDPE, plastic sheeting, hootch, polytarp, ...

- Plastic sheeting often have reinforced grommets at the corners and along the sides to form attachment points for rope, allowing them to be tied down or suspended. + Inexpensive modern tarp are made from woven polyethylene

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**Main characteristics:**
- Strong
- Flexible
- Water resistant
- Breathability
- Low cost
- Easily cleanable
- Allow Sewings
- Allow Weldings
- Low weight
- Versatile material

**Configuration - Size**
- Sheet / roll
- Easy to stock
- Stackable
- Printable
- Can be transparent
- Etc, ...

**Laminated or coated product?**
Definitions

Laminated or coated product?

Lamination process

Coating process

The PE-sheet is a coated product, not laminated. The final product may resemble but the way to manufactures it differ. A PE-sheet is produced via extrusion-coating. The low density PE is melted in the extruder which moves it via a screw to the fabric. The molten PE is poured over the woven PE fabric and via a bar or roll spread over the fabric (as done for PVC production).

A laminated product is a “gluing process” when two substrates are “glued” together.
Specifications


Versatility - configurations

1. vertical  WALLS
2. horizontal  GROUND
3. On slope  ROOF

Tarpaulin  Plastic sheeting - translucent
Plastic Sheeting applications A

- Simple first protection
- Roof repairs
- Tent upgrade
- Winter improvement
Plastic Sheeting applications A

With local materials / timber, bamboo, steel, ...

Framed Shelter

Full package solution

Family Shelter

Full Solutions

Calearth project
Plastic Sheeting applications B

- **Latrines**
- **Showers**
- **Water tank protection**
Plastic Sheeting applications B

- **Water Captation + storage**

- **Drainage**

- **Dam**

Additional waterproofing

- Sandbags as weights
  - Plastic sheeting
Plastic Sheeting applications C

- **Schools**
- **Stores**
- **Market stalls**
Plastic Sheeting applications D

Medical

- Primary care centers
  - Triage zone
  - Dispensary

- Cholera center
  - Cholera beds

- Ebola center
Plastic Sheeting applications E

- Fencing
- To dry and / or to protect food or goods
- Ground sheet
- Mudflaps
- Concrete works
- Shade

Other uses
Plastic Sheeting failures & problems

Problem Statements

01

To create or close openings + chimney

Sheet tearings

Coupling

lifespan

Color loss

Ultra Violet degradation
Plastic Sheeting failures & problems

- Backwater points
- Eyelets breaks
- Condensation & breathability
- Fire resistant & fire injuries
- Waste management & CO2 emission

Problem Statements 02

Greenhouse Effect
Absorption
Reflection

Insulation Factor

Wind & Snow load
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