Make Floor Tiles from Plastic Bags and Film

You can recycle plastic bags into waterproof floor tiles using simple tools.

It is important to only use the right kind of plastic:

- Plastic bags
- Naan water bags
- Plastic film

Plastic bags and film make up around 60% of all plastic waste in The Gambia.

This kind of plastic is called **Low Density Polyethylene (LDPE)**. Make sure you only use this kind of plastic – using the wrong sort of plastic could be dangerous to your health.

**You will need:**

- Overalls, gloves, masks, covered shoes/boots
- 1 melting barrel (an oil drum cut in half, with 50cm legs)
- Stirring equipment (metal reinforcing rods with a metal paddle welded to the end)
- Firewood
- Construction sand
- Tile mould (no more than 4cm deep)
- Used engine oil
- Metal table
- Trowel, mould press

More information:

How to recycle soft plastics, and more instructions on making flooring tiles:  
[wastetowealth.livingearth.org.uk/materials/soft-plastics/](wastetowealth.livingearth.org.uk/materials/soft-plastics/)

How to identify plastics: [qualitylogoproducts.com/lib/different-types-of-plastic.htm](qualitylogoproducts.com/lib/different-types-of-plastic.htm)

Problems caused by plastic pollution: [plastic-pollution.org/](plastic-pollution.org/)
1. **Sort**

Make sure your plastic waste is mainly clean.

Remove all materials that are not LDPE (including other plastics). If you’re not sure if something is LDPE, leave it out.

2. **Melt**

Put the metal drum with firewood underneath and **gently** heat it, add the plastic waste. It will reduce down. Make sure the fire does not get too hot. You will end up melting it down to a large ball of melted plastic.

3. **Mix**

When the plastic has melted, it may start burning slightly. This is fine, but do not let it get so hot that it burns strongly. Add sand until you have the required mixture. You may find it easier to remove the plastic into another container to mix.

4. **Mould**

Quickly remove the mixture and put it into the mould with the trowel. The mixture is very hot so be careful and wear gloves. Press the mixture in so there are no air gaps.

5. **Set**

Remove the mould and leave – it should harden in around 2 hours. Experiment with different amounts of sand and LDPE plastic.

6. **Market**

These plastic floor tiles sell for D30 each (concrete tiles cost D40). These set quicker and are waterproof. Make samples and show them to potential buyers.

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Learn how to manage your waste better!
Start a recycling or composting business!

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