

The image shows a stack of several green, textured plastic sheets, likely V4 PP, resting on a white, crumbly surface. The sheets are stacked in a way that shows their thickness and the texture of the material. The background is a light-colored, granular material, possibly a substrate or a layer of waste, with some small, colorful specks scattered throughout. The text is overlaid on the top sheet of the stack.

V4 PP BRICK

**2020-22 Summary
Origins, Problems & Development**







**HOW TO MAKE
A RECYCLED PLASTIC BRICK**

Original Brief

- Use PP V4 Machines
- Easy to fabricate mould/accessible/affordable
- Use a large amount of recycled plastic



CLEAN CLASSICS

END PLASTIC WASTE

END PLASTIC WASTE

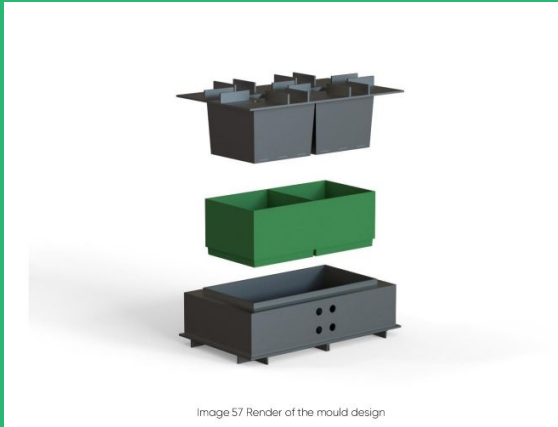
PLASTIC IS A PROBLEM, INNOVATION IS OUR SOLUTION
LE PLASTIQUE EST UN PROBLÈME, L'INNOVATION EST NOTRE SOLUTION

Key Lessons Learned

- It's too much work for most people to make more than 400 bricks, let alone 1000+ for a house.
- Fire is a huge risk.
- UV resistance is a huge problem.
- Brick is over engineered and could be significantly thinner.
- Extruder Pro lacks volume output to reduce time below 4min.
- Less plastic is actually better economically. (its 28% of the brick cost)
- Mould is really heavy/but also weak in places.
- Easily Stuck in Mould
- Overfilling can be dangerous/break the mould
- Still competitive vs other plastic options
- Plastic bricks shrink in the fabrication process
- Lots of other companies mix plastics with sand (but sand is a future problem) others use biowast to reduce costs.

Looking Forward

- 2.0 Brick is already in development but requires testing.
 - Extrude and then compressed in a self cooling mould.
 - 2-5mm wall thickness.
 - £10.45/m² down from £18.35/m²
 - UV/Fire can only be addressed with a cement render.



Key References

- [Design Summary Video 2020](#)
- [Brick Fabrication Process Video](#)
- [Building Bike Shed How To](#)
- [Reports on Building in Indonesia & 2.0 Brick](#)