



Plastics Welding

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Background

Apart from the technical issues of building the Precious Plastics machines (which will dominate the short term focus of the project), The Edge has identified practical and creative **use** of recovered materials as a key focus of our medium to long term work with plastic recycling. Just like the phenomenon of widely reported of people “not knowing what to do with a 3D printer (other than fabricate trinkets) once they have it, working out ways to make use of the recovered materials will be the key to seeding long term engagement and generating practical outcomes.

A knowledge of the appropriate techniques and technologies to **work** this material will be key. As such, initial research into plastics welding seems advantageous.

Below is series of headings to group information into areas of interest.

Safety

Obviously molten plastics can cause burns but other than this the safety hazards can be grouped under

- absorption of hazardous volatile chemicals through the skin or respiratory
- Particulate

at first survey there is very little specific info on safe breathing heated plastics other than to say conducting work in a well ventilated space.

Welding Equipment and technique

<https://www.seelyeinc-ori.com/New%20How%20to%20Weld%20Guide%202015.pdf>

<https://www.creativemechanisms.com/blog/everything-you-need-to-know-about-pvc-plastic>

<https://www.twi-global.com/technical-knowledge/faqs/faq-are-there-any-health-and-safety-implications-of-cutting-and-welding-plastics/> <http://www.sciencelab.com/msdsList.php>

<https://www.plasticweldingtools.com.au/what-to-consider-before-you-buy-a-plastic-welding-tool/>

<https://www.plasticweldingtools.com.au/how-to-weld-plastics/>

<https://makezine.com/2011/09/12/all-about-welding-plastics/>