

Composite materials: Technical Notes

Equipment and Materials

Per student group

- Polystyrene pieces. The exact dimensions are not critical, as long as all pieces are the same size. Typical dimensions are 30 cm × 4 cm × 2 cm.
- Gaffer tape – measured to 50 cm lengths (Footnote ¹)
- Weights
- Rulers
- Plinths or wooden blocks or books (to support structure – 21 cms apart)

Suppliers

There are polystyrene suppliers. The major cost is cutting the polystyrene into (approximately) ruler-sized pieces.

- Geelong Polystyrene Products
4 Lewalan Street, Grovedale
<www.geelongpoly.com.au/>
- The materials used in Part A1, *plus*
- 6 mm sphere of Tuff Tack or a similar generic putty like adhesive

¹ The two major requirements of the tape is that it sticks to polystyrene and that it does not stretch. Gaffer tape is very expensive but it works better than duct tape or electrical tape.

Disposal

Information about the disposal of polystyrene has been copied and adapted from the Metropolitan Waste and Resource Recovery Group (MWRRG). Please see the MWRRG website <<https://www.mwrrg.vic.gov.au/waste/recycling/polystyrene/>> for more information.

After the gaffer tape has been removed from the polystyrene, “household quantities” of polystyrene can be dropped off for recycling at the locations below. We recommend you contact the facilities prior to drop off to check addresses, opening hours or if fees apply. (The Boroondara and Moonee Valley centres only accept polystyrene from their council residents).

- Bolinda Road Resource Recovery Centre
78 Bolinda Road, Campbellfield
Phone: 03 93593813
<http://www.hume.vic.gov.au/Waste_Environment/Waste_Services/Landfills_Tips_Recycling>
- Boroondara Recycling and Waste Centre
648 Riversdale Road, Camberwell
Phone: 03 92784444
<http://www.boroondara.vic.gov.au/your_council/waste-recycling/recycling-and-waste-centre>
- Brooklyn Transfer Station
12 Old Geelong Road, Brooklyn
Phone: 93142297
<<http://www.cleanaway.com.au/contact-us/>>
- Monash Waste Transfer Station and Recycling Centre
380 Ferntree Gully Road, Notting Hill
Phone: 03 95183767
<<http://www.monash.vic.gov.au/Services/Rubbish-Recycling/Monash-Waste-Transfer-and-Recycling-Station>>
- Moonee Valley City Council Transfer Station
188 Holmes Road, Aberfeldie
Phone: 03 83251730
<<http://www.mvcc.vic.gov.au/for-residents/waste-and-recycling/transfer-station.aspx>>
- Sunbury Landfill Resource Recovery Centre
515 Riddell Road, Sunbury
Phone: 03 97442974

<http://www.hume.vic.gov.au/Waste_Environment/Waste_Services/Landfills_Tips_Recycling>

Acknowledgements

Information about the disposal of polystyrene has been copied and adapted from the Metropolitan Waste and Resource Recovery Group (MWRRG)

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