

MUSTERKIDS[®]

End Products of Recycling

Resources recovered from mobiles can replace other resources that would have been extracted from the earth and disturbed the environment.

Circuit Boards

- Circuit boards contain metals including gold, silver, copper and lead. These metals are recovered during the recycling and put back into productive use.
- 1000kg mobile phone circuit boards = 110 tonnes gold ore or 300g of gold. The main use for gold is jewellery.
- 1000kg mobile phone circuit boards = 11 tonnes copper sulphide ore. Copper is 100% recyclable without any loss of quality. The main uses of copper are in producing wire, cables and electronic devices.
- 1000kg mobile phone circuit boards = 123 tonnes silver bearing ore. 24 percent of the worlds silver supply comes from recycled sources. Silver is used to make coins, jewellery, silverware, photography equipment and electronics.
- Lead has a high recycling rate as the quality of the recycled lead is identical to that of primary metal from mining. Over half of the lead produced and used each year has been recycled.
- Epoxy Resin, which is used as a strong adhesive and insulator in circuit boards is recycled and used in the production of shipping pallets.



Batteries

- Lithium ion batteries are recycled and processed for the recovery of cobalt and lithium (to make new batteries)
- Nickel cadmium (NiCad) and nickel metal hydride (NiMetHyd) batteries are processed for nickel (to make stainless steel), cadmium (to make new batteries) and copper.

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Factsheet #6

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Handsets

- The mobile phone handset is made from plastic which is recycled in Australia.
- The handset casing are shredded and turned into plastic pellets.
- The plastic pellets are made into composite plastic fence posts.
- Composite plastic fence posts have now been installed across Australia in general farming, vineyards, oyster leases, animal feedlots and horse studs.



Accessories

- Mobile accessories may require disassembly into components to prepare them for processing. They are shredded and the plastics are separated from the ferrous and non-ferrous metals. The plastics and metals are recycled and made into new products.
- Aluminium can be reused to make aluminium cans.

Packaging

- Packaging is separated into plastic and paper and sent to local recyclers for processing.
- Paper can be recycled into many things including office paper, packaging, toilet paper, egg cartons, soundproofing, furniture and cardboard.
- Plastic waste can be turned into a range of recycled-plastic products suitable for outdoor use, such as, fence posts, outdoor furniture, signage, boardwalks and garden panels.

References

Australian Composite Technology <http://plasmar.com.au/home>

International Lead Association <http://www.ila-lead.org/>

PlanetArk Factsheets <http://recyclingweek.planetark.org/recycling-info/downloads.cfm>

The Silver Institute <https://www.silverinstitute.org/site/>

TES-AMM <http://www.tes-amm.com/>

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Keeping old mobiles out of landfill



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