



Tyre Recycling

About Tyres

Tyres on cars, buses, trucks and heavy equipment literally keep us moving and, when in good shape, help ensure the safety and comfort of vehicles. However, the equivalent of 48 million car tyres reach end-of-life each year in Australia. Although they may look quite simple the average passenger car tyre is made up of around 1.5kg of steel, 0.5kg of textiles and 7 kg of rubber.

Tyres present a significant waste issue in Australia. Of the 48 million tyres that reached the end-of-life in 2009-10 approximately 66 per cent were disposed of to landfill, stockpiled or illegally dumped or were categorised as unknown. Just 16 per cent were recycled in Australia and a further 18 per cent were exported.

If end-of-life tyres are not managed properly they create a number of issues, including:

- The cost of monitoring and removal,
- Taking up valuable landfill space,
- If ignited, they release toxic chemicals and
- Providing breeding grounds for mosquitoes and other vermin.



Tyres are a significant waste issue

Image courtesy of Stoonn / FreeDigitalPhotos.net

Recycling Process

There are various recycling processes that end-of-life tyres can be put through. Initially they are cut into smaller pieces to make transport and handling safer and easier. Further processing is used to separate the rubber, textile and steel. The remaining rubber is crumbed (or granulated) and made ready for re-use.

Tyres and their component materials can be used to make a wide array of new products including:

- rubber products such as soft fall surfaces, artificial turf and conveyer belts,
- road construction and surfacing and
- as an alternative fuel source for producers of energy and cement

Old tyres can also be incorporated into civil engineering projects as lightweight in-fill or embankments.

Reduce Waste

Certain tyres can be retreaded – basically repaired – to extend their useful life. The process of re-treading brings the tyre back up to a safe and usable quality by removing the residual tread and adhering new tread to the old tyre casing. This process has positive environment outcomes as most of the tyre is re-used at least once.

Recycling tyres into new products saves energy, water and greenhouse gas emissions. There is opportunity for the market for tyre derived products to expand and grow in Australia.

Take Action

In recent years governments have worked with the tyre industry to take action on tyre waste by establishing Tyre Stewardship Australia (TSA), a voluntary industry funded tyre product stewardship scheme. This scheme aims to increase both the number of tyres recycled in Australia and the use of products made with recycled material. Tyre industry participants who apply for, and gain TSA accreditation, must commit to playing their part in ensuring sustainable end-of-life use for tyres.



Rubber softfall surface made from recycled Australian tyres at Booralee Park, City of Botany Bay NSW

Image courtesy of Moduplay Group Pty Ltd

The majority of car tyres are disposed of through a business, shop or central point other than a waste transfer station.

Individuals and business can take action to ensure their old tyres are recycled or re-used.

- Consider having old tyres re-treaded or purchasing re-treads,
- If a mechanic or garage changes the tyres ask what they do with the old ones, don't be afraid to ask for evidence like the name of their recycler,
- From 2014 businesses will begin to receive the new TSA accreditation. Look for the TSA logo (below) and choose those services over others without accreditation.



To find a participating retailer or recycler:

- Households and individuals should search Planet Ark's RecyclingNearYou.com.au,
- Businesses should visit Planet Ark's BusinessRecycling.com.au and search for [Passenger Tyres](#) or for [Truck Tyres](#).

Further Information

For more information about tyres and tyre recycling visit the following sites:

- [Tyre Stewardship Australia](#)
- [Department of the Environment - Product stewardship for end-of-life tyres - fact sheet](#)



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Planet Ark Environmental Foundation

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