# Plastics
- Materials for Our Future

<table>
<thead>
<tr>
<th>Code</th>
<th>Material</th>
<th>Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Polyethylene Terephthalate (PET)</td>
<td>Beverage bottles, Food packaging, Clothing, Geo-textiles</td>
</tr>
<tr>
<td>2</td>
<td>High Density Polyethylene (HDPE)</td>
<td>Milk bottles, Freezer bags, Milk crates, Oil bottles</td>
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<tr>
<td>3</td>
<td>Polyvinyl Chloride (PVC)</td>
<td>Blood bags, Plumbing pipe, Electrical cable, Cordial bottles</td>
</tr>
<tr>
<td>4</td>
<td>Low Density Polyethylene (LDPE)</td>
<td>Water tanks, Squeeze bottles, Irrigation pipe, Bread bags</td>
</tr>
<tr>
<td>5</td>
<td>Polypropylene (PP)</td>
<td>Microwave ware, Automotive parts, Plant pots, Compost bins</td>
</tr>
<tr>
<td>6</td>
<td>Polystyrene (PS)</td>
<td>Safety helmets, Fresh food boxes, Drinking cups, Insulation panels</td>
</tr>
<tr>
<td></td>
<td>Includes: Polyurethane, Polycarbonate, Nylon, ABS, Degradables</td>
<td>Airbags, Seatbelts, Computer cases, Life jackets, balls, Heart valves</td>
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</tbody>
</table>
PLASTICS
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- Plastics are one of the most resource efficient and versatile materials available to society.

- Plastics make a significant contribution to the goals of sustainable development:
  - Social progress: plastics provide affordable products giving more people access to higher standards of living, healthcare and information.
  - Economic development: the plastics industry chain in Australia adds value to society. It employs more than 40,000 people and generates sales in excess of nine billion dollars a year.
  - Environmental protection: plastics help save resources – fossil fuels and energy. Plastic products also save water and preserve food.

- Plastics consume only a tiny fraction – just 4% – of the world’s oil, as feedstock.

- Using plastic products saves energy
  - 100kg of plastic parts in cars reduce oil consumption by about 12 million tonnes each year in Europe, reducing CO2 emissions by 30 million tonnes a year.
  - Light weighting reduces plastic packaging for consumer goods – giving an estimated reduction in material use of 28% over the past 10 years.
  - Without plastics, packaging weights could increase by as much as 400%, production and energy costs could double and material wastage increase by 150%.

- Plastics protect our food
  - Trays, bags, films and seals extend shelf life and prevent tampering.
  - Plastics are only 16% of packaging by weight yet protect more than 50% of consumer goods.

- Renewable energies rely on plastics (solar panels, wind turbines.)

- Plastics are too valuable to waste – this includes end-of-life. After serving a useful purpose, plastics can either be recycled or used as an alternative fuel. Plastic waste has a calorific value at least equal to coal and with lower CO2 emissions.

- Responsible use – The Australian plastics industry takes an active role in managing its products and how they interact with people and the environment.

- More than one billion people in the world lack access to safe water. Plastics can save and distribute water economically, reliably and safely.

- Plastics make our lives safer: Airbags, seatbelts, baby seats, bike helmets, life jackets and medical devices are just some examples of life-saving products made of plastic.

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