

Environmental & Energy Conservation Information Sheet

Introduction

The G.James Group of Companies is committed to environmental awareness and energy efficient practices as part of an overall policy which recognises: the scarcity of our resources; the impact of waste; and the emissions produced as a result of our many business activities. It is further appreciated that many of the strategies and practices implemented to manage our commitment have resulted in divisional cost savings and a change in our workplace culture. Being a leading Australian manufacturer of glass and aluminium based products, the G.James Group will continue to review, refine and improve our policies and practices wherever possible to ensure it operates in the most efficient and environmentally-friendly manner possible.

Our Commitment

Aluminium Recycling

- Up to 30% of aluminium extrusions supplied each month by G.James Extrusion is manufactured in Australia from billet produced using recycled aluminium sourced from our own remelt facility.
 - Recycled (or secondary) aluminium billet requires approx. 90% less power to produce than primary billet. In addition, the embodied energy required to recycle aluminium only demands 7% of the energy required to recycle plastic.
 - All cast aluminium products are manufactured from ingots produced using 100% recycled aluminium scrap.
- Available aluminium 'swarf' (or saw shavings) is compressed in-house to form solid aluminium 'pucks' which are then recycled by a third party. In volume terms, this process has a compression factor of 3.5:1 (approx.).

Other Recycling

- The aluminium hydroxide effluent produced by our finishing plants is recycled for use in the manufacture of new road base technology and fertiliser.
- Glass waste is collected and recycled for use in paint additives, blasting mediums and float glass manufacture.
- All PVB interlayer off-cuts (resulting from the manufacture of laminated glass) are collected, exported and reprocessed into new interlayer.
- PVC extrusion waste is recycled on-site to produce new extrusions.
- Recycled cardboard and plastic is used for packing purposes. Similarly our waste cardboard and plastic is bailed for transfer to external recycling companies saving volume and land fill.

Energy Savings

- All new production plants are installed with energy saving lamps, fixtures and daylight switches. These measures achieve the same brightness for 30% less power. Existing plants will have these items installed as the need arises.
- G.James commissioned factories are fitted with 'high-bay' windows and (roof) light sheets to maximise the entry of natural daylight and limit the use of artificial lighting.
- Extrusion ageing ovens and aluminium remelt furnace have been upgraded to operate on less energy.

Water Conservation

- Our new surface finishing plant utilises 50% less water (when compared with our previous surface finishing facility) which in part has been achieved through the use of counter-flow rinsing systems and flow meters.
- Cooling towers, located within G.James' own finishing plants, operate lower than the EPA water consumption guidelines.
- All water used in the aluminium pre-treatment process (done prior to powder coating) is collected, deionised and purified for re-use.
- Water used in our glass processing activities, such as polishing, grinding, drilling etc., is cleaned and recycled back into the glass factory.

Other

- The commissioning of a new thermal break line will allow G.James to supply extrusions for use in energy efficient aluminium windows and doors.
- Significant investment in the commissioning of three insulated glass (IG) or double glazed unit production lines throughout our glass division. These units are recognised as a critical component in the manufacture of energy efficient windows and doors.
- G.James Glass & Aluminium is a member of the **Green House Challenge** (go to: www.environment.gov.au/archive/settlements/challenge for further information).

Disclaimer

G.James has been careful and diligent to ensure the accuracy of this information. For various reasons some of the practices and commitments detailed above may not be holistic in their implementation but rather a practice implemented wherever possible.