



Our goal is to continuously improve the resource and energy efficiency of our operations, and the environmental performance of our products.

James Hardie strives to contribute to the communities in which our plants operate, by becoming involved in local projects and to the wider community, by creating products that use less energy in their manufacture and which are more efficient when installed than alternative materials.

Our Environmental, Health & Safety objectives spell out our commitment to the environment:

- Protecting the environment is critical to the way we operate and do business.
- We continue to seek ways to efficiently use materials and energy and to reduce waste and emissions.

We strive to routinely exceed regulatory and other widely-accepted community standards. All our operating plants are licensed by local government authorities, such as environmental protection agencies, and comply with their requirements for specific issues such as waste management, air emissions, effluent discharge, and storm water run-off.

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## **We conserve water, resources and energy**

The water we use in our plants is recycled up to four times and is cleaned and neutralised before discharge.

The major energy input in our production comes from the high-pressure steam curing of the product. Where possible, the steam is generated as a waste by-product from other industries. At one James Hardie plant, for example, excess refinery gas and steam from an adjoining oil refinery is used.

## **We minimise waste by recycling process materials**

Solid wastes - such as trimmings and scrap, fine particles and reject material - are reintroduced into the production process as raw materials. Solid waste that can't be reused is certified by authorities as non-toxic and non-hazardous material that can be safely disposed of as landfill. Some plants send their reject boards to their cement suppliers to be used in their processes.

We are working with a consulting firm in the US to research alternative uses for our other waste streams.

## **We strive to help our local communities**

When it comes to contributing to the communities in which they operate, individual plants and businesses are encouraged to support local charities and organisations. Activities include sponsorship of local junior sporting teams; providing employees with time off to assist in the organisation of, and then participate in, fund-raising sporting and community events; and the donation of products and employees' time, to programs such as the Habitat for Humanity which build houses for people in need.

of our operations, and the environmental performance of our products. To assist us in this endeavour, we have conducted a life cycle assessment of our products, which considers every stage of their manufacture and use, from raw materials and their processing, to manufacture, construction activities, use, and eventual demolition and/or disposal, including the possibility of recycling in some way.

## **We use renewable and recyclable resources**

The raw materials we use are abundant. Cellulose fibre is obtained from plantation grown wood pulp; we use silica ground from sand or crushed quartz rock; and the water used in the manufacturing process is recycled a number of times.

Cement is the biggest contributor to the environmental impacts of our products, because of the energy requirements and emissions associated with quarrying and cement manufacture. The cement industry continues to improve its environmental performance by introducing new, cleaner technologies.

## **We protect against pollution and conserve the natural environment**

Dust emissions from manufacture are strictly controlled. For example, wet ball milling is used to grind sand. Fine particles generated by sanding and grinding finished sheets are mechanically collected and processed before re-use or disposal.

Finally, our building products are used in lightweight construction systems that are among the most energy-efficient and environmentally responsible building systems available. They are also very durable and require little maintenance during their lifetime. The products have been in use for many years in residential and commercial building applications and do not suffer the durability problems of many other cladding materials.

If buildings created using our products are eventually demolished, the products can be safely disposed of as landfill or recycled.