

The Nature of Our Business

Cement is an indispensable part of our infrastructure, providing jobs and connectivity, constituting a critical element of the global economy. Cement production is growing by 2.5% annually and is expected to rise from 2.55 billion tonnes in 2006 to 3.7 - 4.4 billion tonnes by 2050 (WBCSD). Our challenge is to make our operations as efficient as possible, while minimizing our negative impact on the environment.

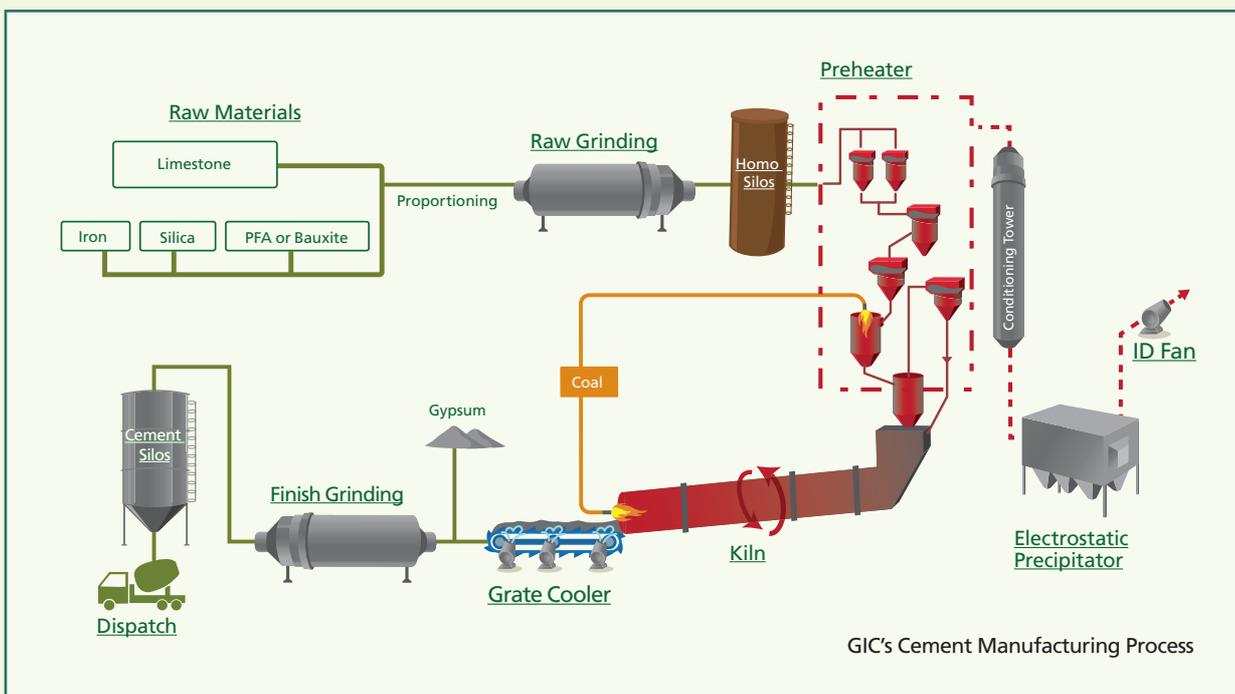
Traditional Cement Manufacturing

The primary component of cement is limestone. To produce cement, limestone and other components, such as clay-like materials, silica and iron oxides, are heated in a kiln to 1,450°C where a lumpy solid substance called clinker is formed. The clinker is then combined with gypsum and finely ground to form cement. The manufacture of cement is energy-intensive because of the high temperatures required. Generally, producing a tonne of cement clinker takes 3.5GJ of energy, the equivalent to the energy released by the combustion of 135kg of coal, which in turn generates almost a tonne of CO₂ emission.

Our Green Concept in Response to Society Change

The skyline and economy of Hong Kong has changed significantly over the last 130 years, from a small outpost to a city known as a world-class international financial centre. In this time, GIC has also grown alongside Hong Kong. We have long been a key part of the city and have contributed directly to its development by supplying cement for its infrastructure and indirectly by supporting employment and the local community.

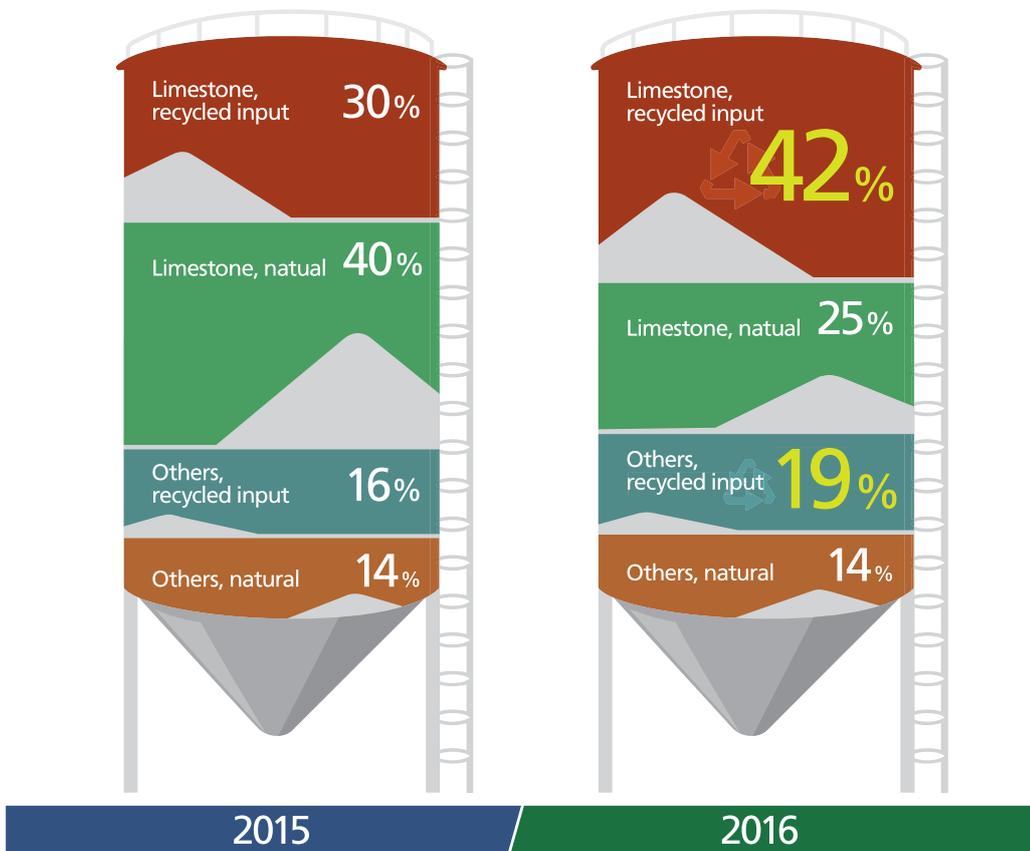
Since the role of cement is significant in society, we need to comprehensively address its environmental impact while making a concerted effort to make cement less resource-intensive, with a particular focus on reducing our carbon footprint. This means looking at less carbon-intensive fuels as well as heat recovery and emission reduction, as much as feasibly possible. Switching to alternative fuels can help (see "Environment"). Promoting the use of blended cement also improves the efficiency of clinker usage.



As mentioned above, limestone is the most significant portion of raw materials used in cement production. Although limestone used in our Hong Kong Division is imported from China, the Philippines and Japan, we are working on reducing our reliance and ensuring a secure supply by increasing the usage of limestone from eco-friendly sources. It not only reduces our reliance on natural resources, but also contributes towards GIC's effort to help with resolving the waste management problem of other industrial settings.



Raw Material Used in Our Cement Production (GIC)



Raw materials from recycled input source

