



ArcelorMittal

# How steel is made

## Steel: a remarkable product

Steel is a uniquely **versatile material** composed of iron, a maximum of 2% of carbon and alloying elements. Did you know that there are thousands of different steel grades? Almost everything that we use is either made from, or manufactured with, steel.

Steel consumption is **directly linked to GDP growth** in developing regions. In fact, worldwide steel demand in recent years has been driven by growth in developing economies, in particular in the BRICET countries (Brazil, Russia, India, China, Eastern Europe and Turkey). In developed economies, steel consumption per capita is around **400 kg of finished steel consumption per capita** every year.

Steel is endlessly recyclable, as recycled steel does not suffer from degradation. 1,000 kg of steel is composed of 550 kg recycled steel.

Source: worldsteel.org, Understanding Steel (ArcelorMittal University)

## About ArcelorMittal

ArcelorMittal is the **world's leading steel company**, with operations in more than 60 countries and a workforce of around 262,000 employees. Our Group has steelmaking and mining operations on four continents. Our Group is the largest producer of steel in Europe, North and South America, Africa, the second largest steel producer in the CIS region, and has a growing presence in Asia, particularly in China.

ArcelorMittal is the leader in all **major global steel markets**, including automotive, construction, household appliances and packaging, with leading R&D and technology, as well as sizeable captive supplies of raw materials and outstanding distribution networks.

ArcelorMittal is committed to its promise of **'transforming tomorrow'** and the three values that underpin it – Sustainability, Quality and Leadership.

Source: ArcelorMittal Activity Report 2010

## Steel for Packaging

Cans have been around for hundreds of years. Did you know that they were **first used by Napoleon's armies** at the end of the 18th century as containers for food? Not surprisingly, food safety is still one of the most important benefits of canned food packaging. However, food storage is only one of the many applications of steel packaging.

In Europe, **34 billion beverage cans are produced every year**, 18 billion of which are made of steel. A 33cl can contains 17g of tinplate. Thanks to ultra light steel, the **weight of a can has dropped by 30%** over the past ten years. The wall thickness of a beverage can is thinner than a human hair!

**Steel cans are the most recycled form of packaging.** 66% of steel cans are recycled in Europe.

Source: worldsteel.org, Understanding Steel (ArcelorMittal University)

### Conventional route (primary steel making)

### Electric furnace (secondary steel making)

