

# Resource conservation









#### **Energy**

We are continually working at improving our energy efficiency. From 2010 to 2014 we were able to reduce our energy consumption per square metre by almost 25 percent. During the same period, our consumption of heating oil was even able to be reduced by almost 50 percent. It is a sustainable energy strategy for both production sites that underlies both of these improvements.

#### Bernrain energy concept

At the Chocolat Bernrain site, we already put a highly efficient system into operation in as early as 1982 for the recovery of waste heat from our production processes. A water circulation system that largely meets our heating needs forms the heart of the system. After the commissioning of the system, we became the Swiss chocolate factory with the lowest energy consumption per tonne of chocolate.

## Stella energy concept

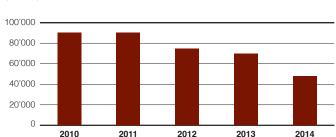
The extensions at Chocolat Stella also saw the implementation of a modern and efficient energy concept at our Ticino production operation in 2012. Over winter and the transitional periods, waste heat is used for heating as far as possible: heat is extracted from groundwater as well as cooling water for this purpose. The new system has enabled the use of fossil fuels and the emissions of CO<sub>2</sub> to be significantly reduced.

### Renewable energies

We rely on energy from renewable sources rather than from fossil fuels and, in Kreuzlingen, already put a photovoltaic system on the roof of the storage facility into operation in 2013. It generates approx. 30'000 kWh of electricity annually and serves to reduce CO<sub>2</sub> emissions by 18 tonnes per year. Since 2013, the total additional energy demand at both sites has been covered exclusively by electricity from hydropower. In effect this means that we cover all of our electricity needs with renewable energy.

## **Heating oil consumption**

(in litres)





## **Packaging**

#### **FSC** certification

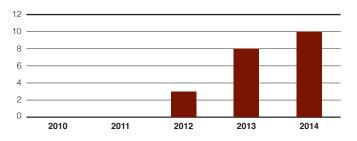
We use paper and card exclusively from sustainable forestry bearing the FSC seal for the packaging of our chocolate.

## Biodegradable wrapper foil

To avoid waste, we have used a biodegradable wrapper foil for an increasing number of products since 2012. We have been looking at this matter for some time, but a product made from FSC timber, and not from foodstuffs such as corn, has only just reached the market. This foil is vapour-coated with an ultra-thin aluminium layer to protect the chocolate against light and oxygen, thereby helping to retain its freshness. The aluminium layer is 17 times thinner than a conventional foil used for chocolate packaging. The wrapper foil is certified to both the American ASTM D6400 standard as well as the EN 13432 European standard for compostable packaging. What's more, the foil has also been tested and certified as being compliant with the «OK Compost Home» standard; its suitability for home composting has been demonstrated.

## Biodegradable wrapper used

(in tonnes)



#### Water

The implementation of Energy Concept 1982 has resulted in a 98 percent long-term reduction in mains supply water consumption at Chocolat Bernrain. At Chocolat Stella, water consumption was also able to be reduced by 75 percent for 2012/2013.