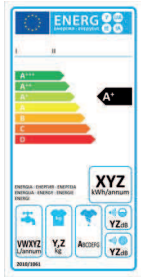
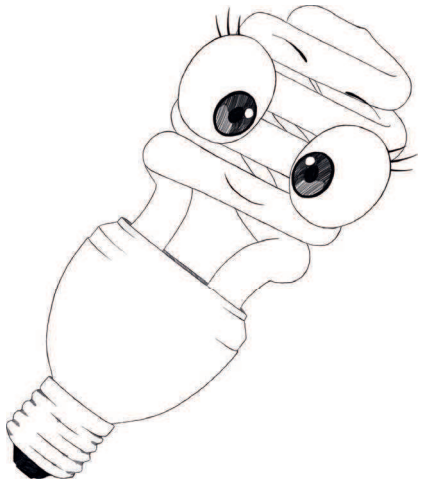
Efficient, economical lighting

A short story

There are three types of bulbs: incandescent, compact fluorescent and LED. LED, or «light emitting diode» bulbs are the latest generation and they are the best option for saving energy.
LED bulbs consume between three and five times less energy than compact fluorescent bulbs, also known as 'energy-saving bulbs', and more than ten times less than incandescent bulbs. In addition, they usually have a lifespan of more than 15,000 hours and can easily last 10 years depending on use, making them much tougher than their older siblings.





How do they work?

LED bulbs operate using the principle of light-emitting diodes. Unlike other bulbs, power consumption is no longer the main indicator used when selecting a bulb, because it does not correspond to the intensity of light produced. For example, documentation for LED bulbs includes information such as '9W=60W'. This means that just nine watts will be consumed, while 60 watts will be produced, thanks to the efficiency of light-emitting technology. LED bulbs can be used for all types of lighting: in homes, in shopping centres, in industry, for showcasing historic buildings and for public lighting. Princess Grace Hospital Centre has installed LED lighting in all of its buildings, including the operating theatres.

Savings

Lighting currently represents an average of 12% of household electricity consumption, excluding that used for heating and hot water. By installing LED bulbs, it is possible to make savings of up to €110 per year. Naturally, this depends on the number of lights and consumption habits, but it is worth knowing that LED bulbs generally enable savings of 85% over traditional lighting bills.

How much do they cost?

LED bulbs for domestic use cost between €3 and €10 on average, but their life span makes this investment cost effective over the long term. In addition, some bulbs come with three- or five-year guarantees.

Good to know

Manufacture and recycling

Many manufacturers of LED lights take dismantling and recycling into account right from the design stage. The impact of LEDs on the environment is 75% less than that of incandescent bulbs. They do not contain mercury, can withstand being switched on and off frequently, and are fairly shock resistant. In addition, LEDs operate at a very low voltage, which can be a benefit in terms of electrical safety in a building.

Check the labels to find out the light output!

On LED bulb packaging, the colour temperature is given in Kelvin. A temperature of 2,700K indicates warm white, while a temperature higher than 3,500K is a cooler white, and therefore not recommended for your living areas. The Colour Rendering Index (CRI) has values ranging from 0 to 100 and indicates the quality with which a light source reveals the colours of illuminated objects. The closer the value gets to 100, the better the light source is at rendering colour !

Tip

LED bulbs carry colour codes, which are a mix of the CRI and the colour temperature. For example, in colour code 832, the 8 indicates that the bulb has a CRI of 80, and the 32 denotes a colour temperature of 3,200K. To achieve optimal lighting quality, you should look for bulbs whose colour codes start with an 8 or a 9. For a lounge area with warm lighting, a good colour code would be 927, for example.

For more tips, go to
www.transition-energetique.gouv.mc