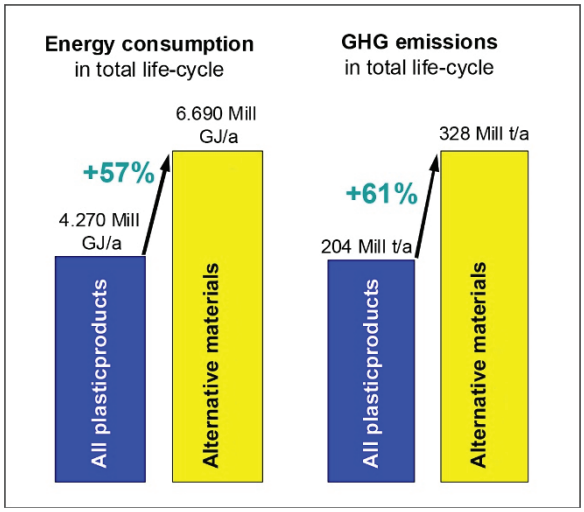
Recycling

Steel is easy to recycle (according to SteelWorks, it's the most recycled material on the planet). But while steel blades *can* be scrapped, reprocessed and made into new products, recycling is uncommon in the printing industry.

Plastic has a complex recycling process and many products (including doctor blades) end up in landfills. The plastic that is disposed can take many years to break down in the environment or, when incinerated, emits carbon dioxide.

Plastic doesn't deserve its reputation

Plastic gets a bad rap when it comes to the environment. But a European study in 2010 found that there was a *net positive impact when products were made of plastic vs. other materials in terms of energy consumption and greenhouse gas emissions* over their total life cycle (figure 2). "The Impact of Plastics on Life Cycle Energy Consumption and Greenhouse Gas Emissions in Europe," conducted by denkstatt for Plastics Europe, considered 173 products comprised of up to 6 different polymers and 7 different alternative competing materials including steel. It was determined that "both energy consumption and greenhouse gas emissions would increase significantly if plastic products were to be substituted by other materials." The study concluded that, "*The use of even current fossil fuel based plastics [does] indeed make a significant positive contribution to the goals of energy efficiency and climate protection.*"



Plastic is the Winner

Efforts are occurring globally to reduce the environmental impact of producing both steel and plastic. Recovered material is being added into the steel making process, and research is being done to produce plastics that can be more easily recycled. Some doctor blade plastic is now even being manufactured from recaptured carbon monoxide (ironically from steel mills!). However, while neither material is perfect from an environmental point of view, ***plastic is the clear winner due to the substantially lower energy requirements and carbon emissions produced during its production***. With longer blade life and lighter weight, plastic doctor blades also appear to have the edge (so to speak) when it comes to transportation. So, if you're a printer looking to reduce your carbon footprint, you can start by choosing plastic doctor blades over steel.