





GF Piping Systems Products and the Environment

> ISO 14001



GFPipingSystems

GF Piping Systems is a leading supplier of piping systems made of metal and plastics. For customers around the world, we develop system solutions and high quality components for the safe transportation of water, gas and other media.

These are used in industrial applications, the water and gas distribution industries, and in domestic and sanitary installations. GF Piping Systems covers the growing demand for complete solutions from a single source in a wide variety of applications.

We think and act sustainably

Green thinking and action is a tradition of GF Piping Systems. Climate change and clean drinking water supply are key ecological issues that the world urgently need to deal with. GF is actively making a contribution to finding solutions for the complex problems in precisly these areas. We offer complete systems for nearly every application, whether in building technology, water treatment, cooling or other segments.

Climate and energy

Conserving energy has the highest environmental priority at GF. When energy is consumed, non-renewable resources are used and air emissions are created. That is why we always aim to improve energy efficiency in our production processes, thus reducing the amount in greenhouse gas emissions.

Sustainable use of resources

The trend towards a more sustainable use of energy requires action in diverse business areas. The same high standards apply to all GF plants worldwide.

Energy

Energy consumption has
the largest environmental
footprint at GF because the
use of energy consumes
non-renewable resources and
causes emissions in to the air.
The objective therefore is to
minimise the consumption
of energy by optimising
production processes and there
by to increase energy efficiency.



> GF Product benefits

- technological expertise
- premier quality and performance
- system solutions
- know-how and experience
- local support

Environment > GF pioneering green solutions



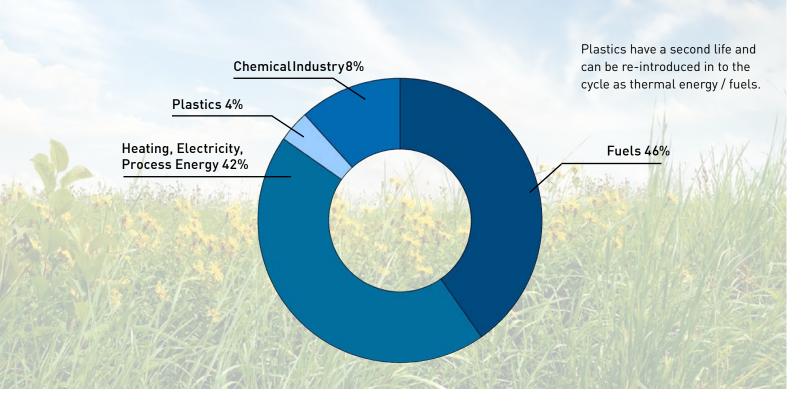
> Material

Plastic piping systems at GF offer applications and dimensions for better greener solutions than competitive materials.

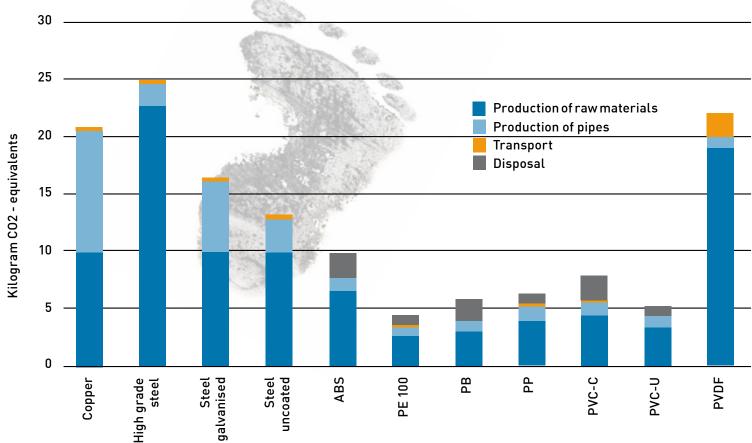
In the case of PE100 (DN80) pipe manufacture the carbon dioxide emissions results are five times lower than those of a comparable steel pipe.

This result is concluded from an independent study that focussed on the ecological footprint of various piping materials.

Four percent of the oil produced worldwide is used for plastics manufacturing. Nearly 90% is attributed to fuel consumption and therefore only used once.



> Better for you, best for the environment



CO2 footprint of pipes made of plastic and metal (DN80). Plastic pipes of PVC, ABS, PE, PP and PB exhibit a significantly better environmental performance than metal pipes.

> ISO 14001

ISO 14001 is an internationally accepted standard that sets out how to have an effective Environmental Management System (EMS).

The standard is designed to address the delicate balance between maintaining profitability and reducing environmental impact; with the commitment of your entire organisation, it can enable you to achieve both objectives.

Excellence in our Sales Support

ISO 14001 : 2004 is an environmental management standard. It specifies a set of environmental management requirements for environmental management systems.

The purpose of this standard is to help all types of organisations to protect the environment, to prevent pollution and to improve their environmental performance. www.georgefischer.co.uk



MakingaWorldofDifference ISO 14001

> Better for you, best for the environment

In times of rising energy prices, saving energy is the key to success in every business. Today we lose 60% of produced energy into the environment. To save energy means to save money. The more money, the better for you. The less energy, the better for the environment. The best way to achieve both is to use GF Piping Systems products and solutions.

- No corrosion and no incrustation in plastic piping systems ensures the same flow rate from the beginning to the end of the system lifespan resulting in less energy needed.
- > Reduce energy consumption by better insulation and lightweight materials.

> Lower energy consumption for water transportation: up to 100% more energy costs for steel/plastics in diameters under 100mm.

New GF Hydropower Plant



> Kilograms Oil > Equivalent / Litre Material

Aluminium Copper Steel Plastic

Less oil is required to produce plastic raw material than metal

> Clean Water Foundation

Drinking water for the world

Over a billion people have no access to clean water and 2.6 billion people do not have basic sanitation.

This potentially life-threatening situation was reason enough for GF to offer assistance.

The Clean Water foundation was established in 2002 and is our platform for numerous projects worldwide aimed at supplying people with clean drinking water.

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The goals of this foundation are to ensure survival, improve health, stop migration and promote training and education. The activities of Clean Water focus on extraction, transporting, storing and distributing water

Helping people help themselves

Clean Water supports specially selected projects that involve the local population and if possible, make sure use of local techniques and materials. We believe self-sufficiency is the only way to ensure the long-term success of these projects.



Since 2002, GF has thus been able to fund approximately 50 "Clean Water" projects around the world and help provide more than 100,000 human beings with a sustainable supply of drinking water. "Clean Water" is an expression of the company's active responsibility for the welfare of the community at large. Thus, "Quality of life from GF" means that people all over the world have come to expect GF to make a significant contribution to meeting their needs – both now and in the future.

Recycling

Recycling is undertaken at each stage in the manufacture and utilitsation of GF piping systems. However, the process of producing the raw material, for manufacturing the pipe, and for the installation of the piping system into its end use application are designed to maximise the use of the raw material with little waste.

Plastics only represent 4% crude oil consumption, but it is realistic to assume that the energy value of plastic must be utilised.

There are two recycling possibilities:

- re-use, create new products,
- incineration, create thermal energy

In the re-using method, plastic waste is returned to its original state via various processes, such as hydrolysis, pyrolysis, regranulation.

At George Fischer production sites waste is ground (regranulated) and returned to manufacturing of products, which have lower requirements for quality and hygiene than pipes and fittings. For instance, hand levers for valves, actuated valve housing etc.

Materials considered recyclable are mainly thermoplastics, such as PE, PP, PVC, PB, PVC-C.

Recoverable heat energy of different materials

PE / PP / PB 44000 kJ/Kg
Heating Oil 44000 kJ/Kg
Coal 29000 kJ/Kg
PVC-U / PVC-C 19000 kJ/Kg
Paper 16800 kJ/Kg
Wood 16000 kJ/Kg
Household waste 8000 kJ/Kg
Metals 0 kJ/Kg





GF Piping Systems > worldwide at home

Our sales companies and representatives ensure local customer support in over 100 countries.

www.georgefischer.co.uk



The technical data is not binding. They neither constitute expressly warranted characteristics nor guaranteed properties nor a guaranteed durability. They are subject to modification. Our General Terms of Salé apply.

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