

# More than plastic

GF DEKA – Customized piping systems for your needs





GF DEKA GmbH

# Customized extrusion

High-quality plastic pipe systems for the chemical and petrochemical industries: DEKA pipes are thermally stable and corrosion-resistant thanks to high-performance polymers.

DEKA has been setting standards with piping systems made of high-performance materials for the chemical and petrochemical industries since 1960.

Whether corrosion-resistant or thermally stable, DEKA pipe systems are more than just plastic. Since 1960, the specialists have been reinventing the plastic pipe. From the preparation of materials according to our own formulas, via production and finishing to Europe's largest high-rack warehouse for plastic piping systems. Whether PP, PE, PVC or high-performance thermoplastic, DEKA, which joined Georg Fischer in 1998, sets the standard.





The precondition for it is highly equipped machinery with efficient extrusion lines, a computer-controlled mixing unit and a strict quality management with all essential control systems. The basis for this long-standing and continuous success was and is formed by experience, know-how, the will for innovation and highly motivated staff.

## Your key benefits

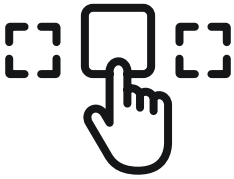
- **Thermally stable and corrosion-resistant piping systems thanks to high-performance polymers**
- **Specialized in customization of pipe elements and fittings for user-specific applications**





GF DEKA GmbH

# High-quality plastic pipes for demanding industries



**It begins with a selection of the most suitable raw material, the conception of mixtures, the differentiated adjustment of production lines, as well as the monitoring and quality controls of them.**



#### **Recycled materials**

Presently, the company recycles over 90% of all plastics waste which is incurred during production. This material is used again in other productions for certain branded pipes and fittings of GF DEKA or external fabricators.



#### **Partner of the users**

DEKA not only manufactures pipes “off the rack” but also acts as an application-specific solution provider for the most demanding customer industries.



#### **Quality at every level**

From plastic formulas to pipe finishing: As a single-service provider for the entire value-added chain, DEKA makes the most sophisticated plastic piping systems possible.



#### **Certified top quality**

DEKA piping systems meet the most demanding requirements, a fact that is impressively underscored by certification to international standards.



#### **Covering the globe for demanding customers**

DEKA know-how has been part of the extensive GF Piping Systems family since 1998. Users can therefore benefit from qualified service and domain expertise around the world.



Our experience and services

# Customizing

## Chipless / thermal forming

Bending, pressure forming, shaping and pressure shaping. Thermoplastics are getting rubbery – elastic and expandable due to heating and can be formed easily with lower force. By cooling down whilst retaining the force, thermoplastics will become form-stable again and keep their given form.



### Bonding

Adhesion as well as diffusion bonding is possible.

### Welding

A plastic welding means connecting thermoplastic materials by heat and pressure.



# Plastics processing

**One special department of DEKA deals with the topic of customizing. It adds significant value to DEKA pipe elements and fittings for user-specific applications.**

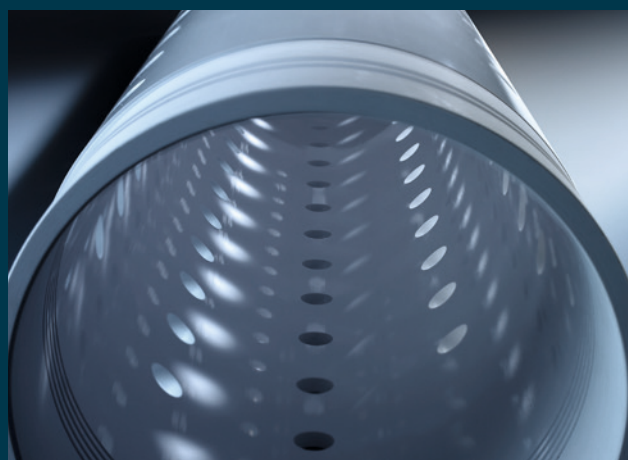
This saves costs: Delivery times are shortened and the products are processed perfectly during additional steps with technical know-how in our company. With modern CNC technology pipe elements get milled, staked, bent, drilled, swiveled and much more. Our staff has long-time experience and the necessary qualifications in different treatment procedures. Therefore, we have the ability to realize each differentiated design within the scope of customized manufacture or a complete module fabrication.





# Machining technology

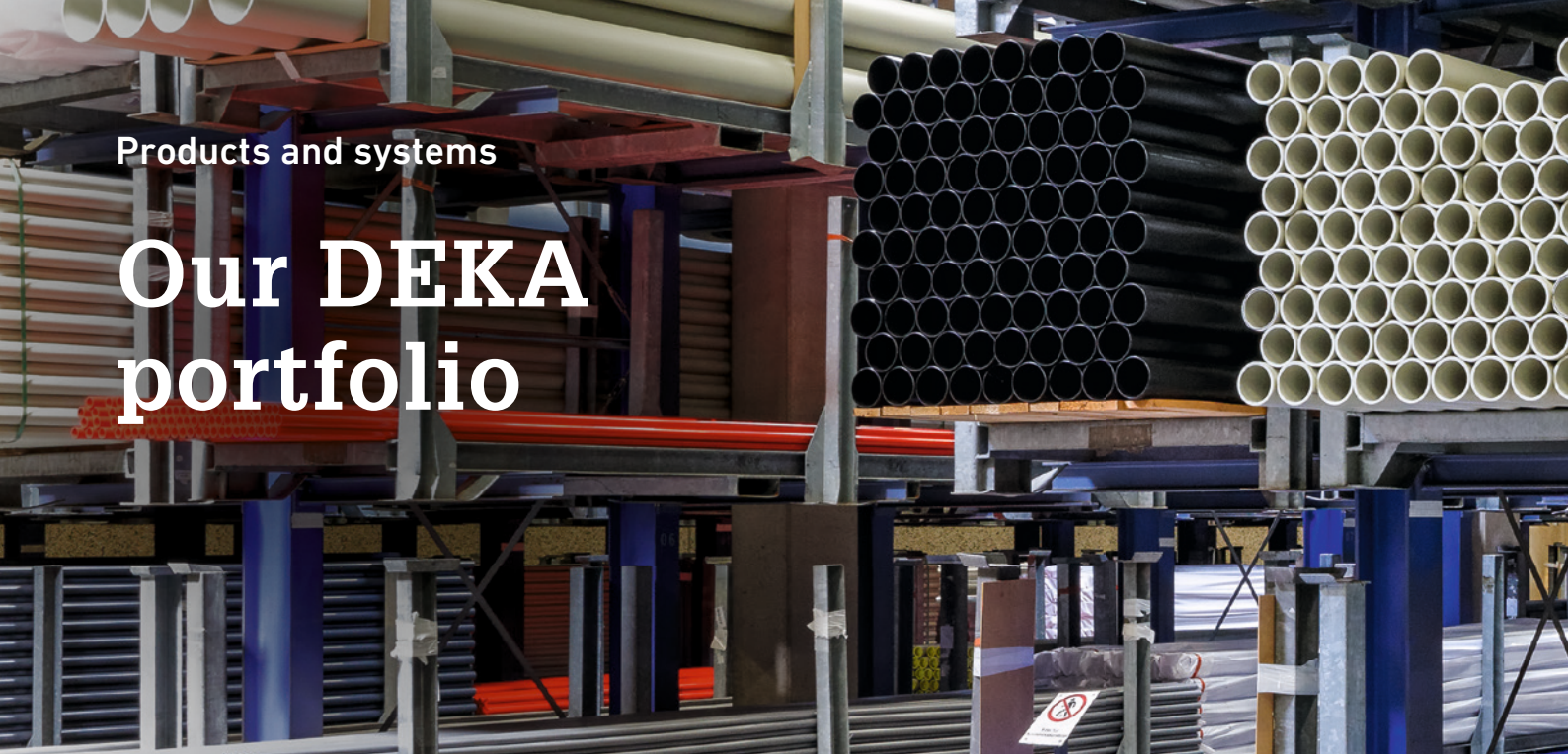
Machining can be used in production of single parts, small batches and parts with complex structure. Machining is also an option if production with other processes is impossible or too difficult.





Products and systems

# Our DEKA portfolio



## Air ventilation pipes

In version PPH (PP-s) , PVC-U; PVC-C<sup>®</sup>. Both flame retardant PPH (PP-s), and a PVC-U/ PVC-C ventilation pipe system, (used for example in the chemical process industry).



## Pipes for pneumatic dispatch

**Pneumatic dispatch system delivery program:**

- DEKADUR- PVC-U<sup>®</sup> (blue-grey / dark-grey)
- DEKADUR G<sup>®</sup> PVC (transparent)
- DEKATEC FLZ (ABS/PC) Halogen-free, flame-retardant alternative

**Available products:**

- Travel pipe d63, d90, d110, d160, d200
- Matching sleeves
- Suitable bends
- Other pneumatic tube components on request



## Liner pipes

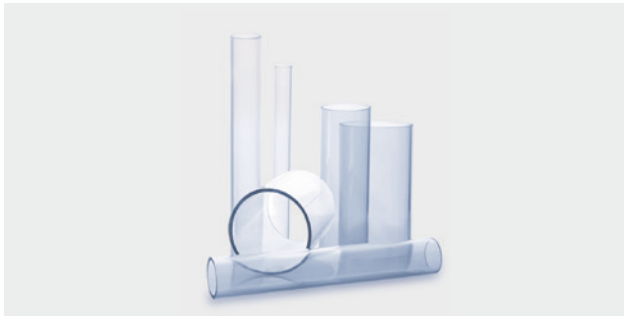
Product range Liner - pipes for the chemical process industry PVC-U/ PVC-C/ PP-H/ PP-B/ DEKADUR-PLUS<sup>®</sup>

**Liner components made from DEKAdur Plus**

- In-house development @ GF DEKA
- Ca/Mg free formulation designed for chemical resistance
- Higher possible temperature loads than conventional PVC-U
- Application in the chemical process industry (chlorine production, semiconductors, flue gas scrubbing, etc.)







### PVC-G

- Transparent and uniform color
- Smooth interior walls
- Lower overall installation cost
- Same ease of installation as standard PVC

#### Typical applications

- Safety piping
- Visual flow and leakage monitoring
- Sight glasses



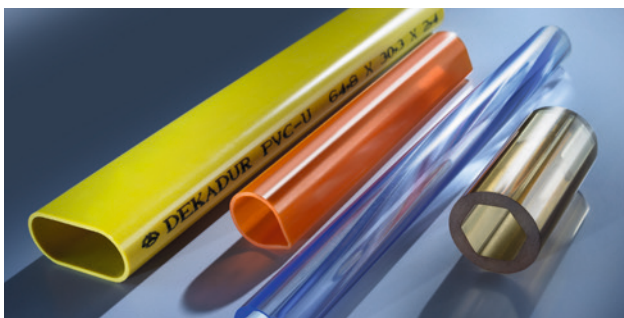
### Algae farming

#### DEKADUR-G®

- PVC-U transparent
- UV-stable
- Very thin wall thickness
- EU food certified

#### Typical applications

- Cultivation of microalgae in photobioreactors
- Production of fish feed
- Use in biogas plants
- Chemical / pharmaceutical / food industry



### Customized Extrusion

- Semi-finished product production
- Customized system solutions
- Material development with manufacturers (high-tech materials)
- In-house recipe development PVC-U / PVC-C
- "New ways" (nano, coatings, joining technology)

## Application area

# Spezialized for a variety of special applications

When it comes to customization we are here for you.  
We understand the needs of our customers and can help each individually with our knowledge and manufactory.

## Possible fields of applications



### Water treatment / Ultrafiltration / Reverse osmosis

Prefabricated filter modules



### Ventilation applications



### Paper manufacturing



### Medical / laboratory technology

Filter housings made of special PP / PE natural  
Special extrusion processes and downstream processing



### Aviation

High performance plastic polyetherimide (PEI)



### Food- / Chemical- / Aerospace- & Automotive industry



### Power generation

Flue gas desulfurization



### Building services





## Industry sustainability leader GF Piping Systems introduces bio-attributed PVC to its portfolio to reduce CO<sub>2</sub> footprint

As a pioneer of pressure piping, GF Piping Systems (GF) announced the introduction of bio-attributed materials to all of its market-leading polyvinyl chloride (PVC-U) metric pressure pipes, fittings and valves produced in Europe. The sustainable PVC resin, made using tall oil, a waste product from paper production will see up to 90% reduction in the CO<sub>2</sub> emission during production versus conventional PVC while still maintaining the highest quality, durability, and recyclability.

The PVC piping systems from GF, first produced in 1955, have been tried and tested for more than 65 years. Today, they include pipes, fittings, valves, actuators, and measurement and control technology used across industries in over 100 countries for the most demanding applications.

To achieve the biggest impact, the PVC resin used for pipes, fittings and valves is successively adjusted to use up to 20% bio-attributed PVC. The sustainable PVC resins meet the same stringent performance criteria as GF's conventionally produced PVC grades. To verify the correct use, an independent certification body is appointed to audit the production plants and supply chain which processes the bio-attributed PVC-U.

"With the introduction of bio-attributed PVC into our material mix, we are transitioning toward more sustainably sourced products," announces Jens Frisenborg, Head of Business Unit Industry/Utility at GF Piping Systems. "By adding renewable raw material, with identical chemical and mechanical properties, to our valves, fittings and pipes, we provide our customers with unrivaled quality, while also supporting them in achieving their own sustainability goals."

Insensitive, flexible to plan, easy to install, and very reliable: these properties of piping systems are in demand in numerous industrial areas: in drinking water treatment, microelectronics production, in sewage treatment plants, in shipbuilding, and the food industry. PVC piping systems are suitable for use in almost every branch of industry. It is not only their durability that makes them so versatile but also their easy installation. Now with bio-attributed PVC, GF Piping Systems is ensuring they are more sustainably sourced.

**More about sustainability at  
GF Piping Systems can be found here:  
[www.gfps.com/com/en/about-us/sustainability.html](http://www.gfps.com/com/en/about-us/sustainability.html)**

## Local support around the world

Visit our webpage to get in touch with your local specialist:

[www.gfps.com/our-locations](http://www.gfps.com/our-locations)



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