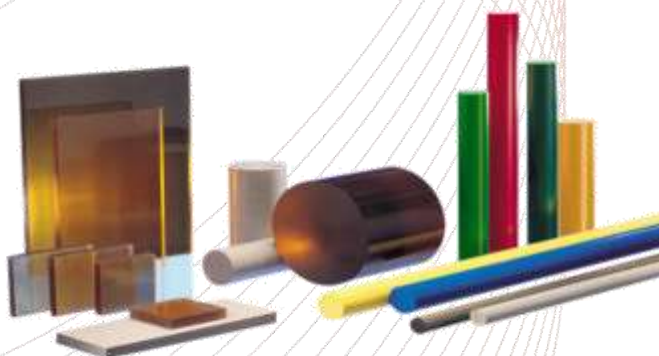
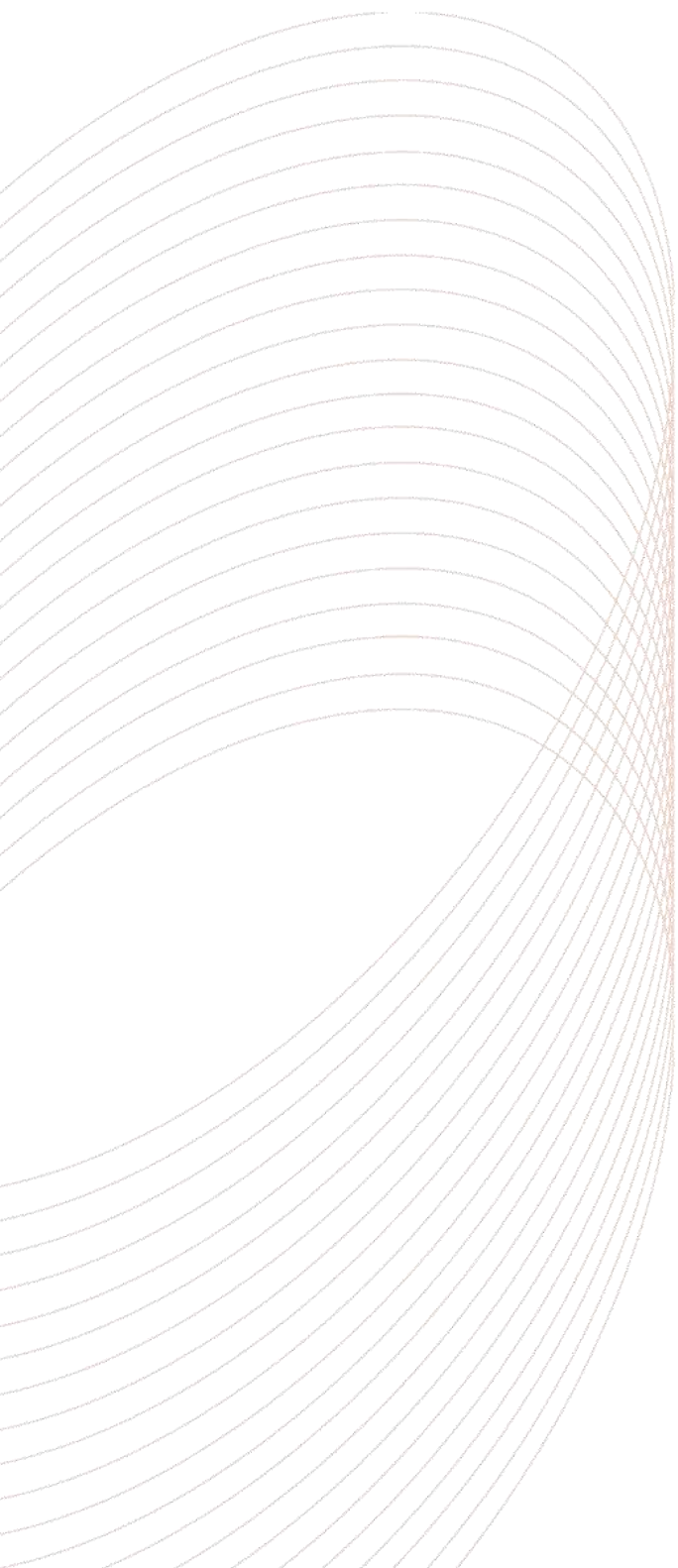


AKUplastics

Your supplier

Product range





PRODUCTS

OUR PROFILE

MATERIALS

SEMIFINISHED PRODUCTS

- Sheets
- Solid rods
- Hollow rods
- Profiles
- Sight tubes

DELIVERY OVERVIEW

FINISHED PARTS

VENTILATION FITTINGS

MACHINERY & EQUIPMENT

SUSTAINABILITY

Our profile

With years of experience in sales and processing of thermoplastic semi-finished products, we have become a significant Austrian provider of complete solutions for the entire processing industry.

From our headquarters near Melk on the Danube, we supply and support the domestic market as well as our customers in Western Europe, Hungary, and Southeast Europe. Our two warehousing subsidiaries in the Czech Republic and Slovakia are responsible for their respective markets as well as other Eastern European countries.

Our products are used in various sectors such as:

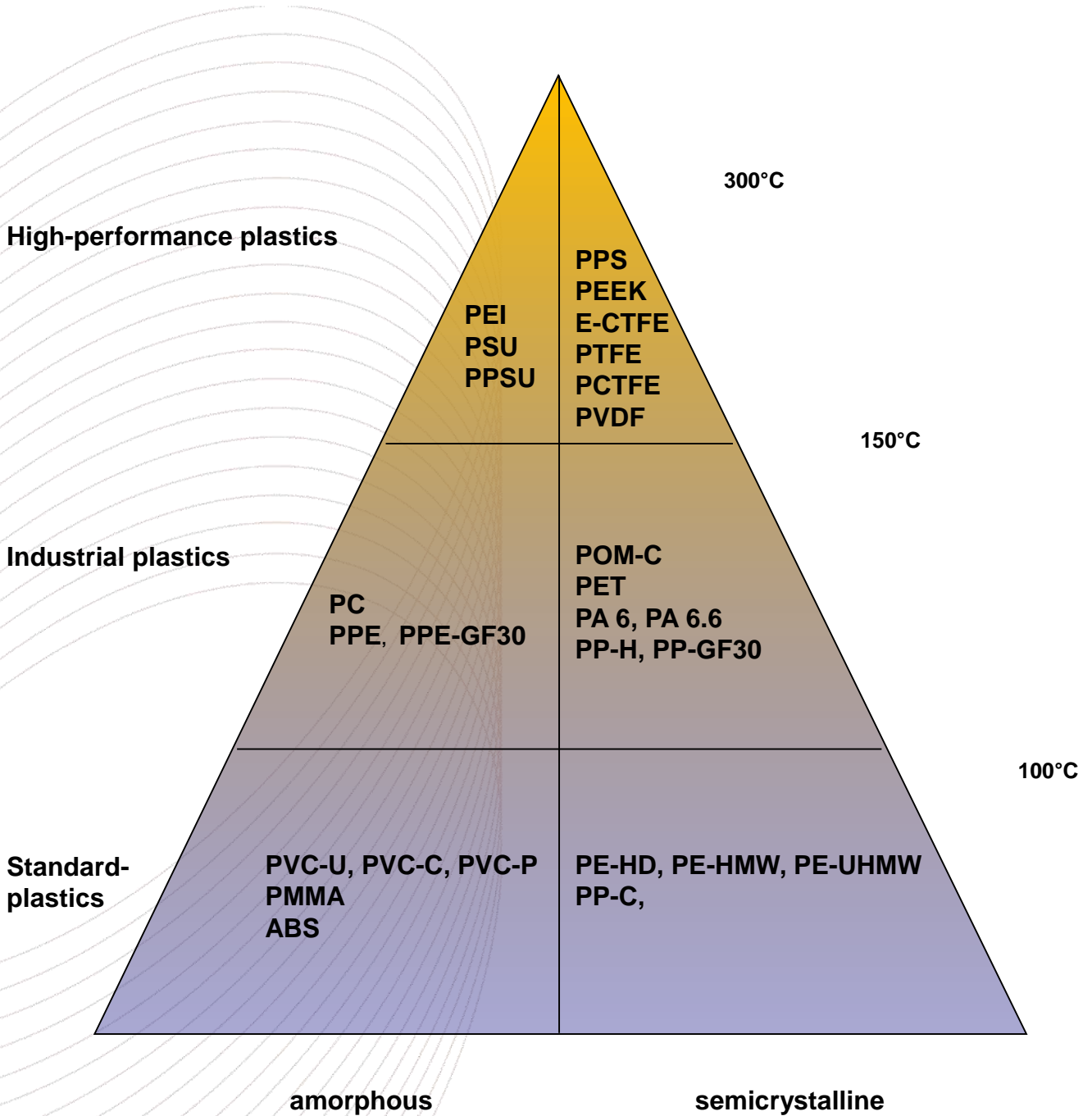
- Chemical industry
- Tank and plant construction
- Semiconductor industry
- Apparatus engineering
- Electrical and electronic industry
- Mechanical engineering
- Storage, lifting, and conveying technology
- Textile machine construction
- Automotive industry and vehicle construction
- Food industry
- VisCom applications
- Medical technology
- Nuclear technology
- and many other areas.

A balanced product range, ranging from semi-finished products such as sheets, solid and hollow rods, hexagonal rods, flat bars, standard profiles, welding wires, and sight glasses to machined finished parts as well as ventilation fittings and processing machines for welding and bending technology, clearly demonstrates this.

Through continuous examination and expansion of our supplier base, we are able to offer the best quality at fair prices.

As permanent market observation and societal changes require a rethink in solutions, semi-finished products based on biopolymers and recyclates are now being produced worldwide for the first time.

Materials



This overview provides a selection of the materials available on the market and obtainable from us, and it does not claim to be exhaustive.

Semi-finished products - Sheets

From well-known standard plastics (PVC, PE, PP) to engineering plastics (PA, POM) and high-performance plastics (PTFE, PFA, E-CTFE, PEEK), we supply sheets and blocks.

The raw materials used are characterized by consistently high quality. Depending on the material and thickness, the sheets are manufactured either on state-of-the-art extrusion lines or by compression/sintering.

For cost-conscious processors, we also supply sheets made from PE and PP recycled materials, depending on material availability.

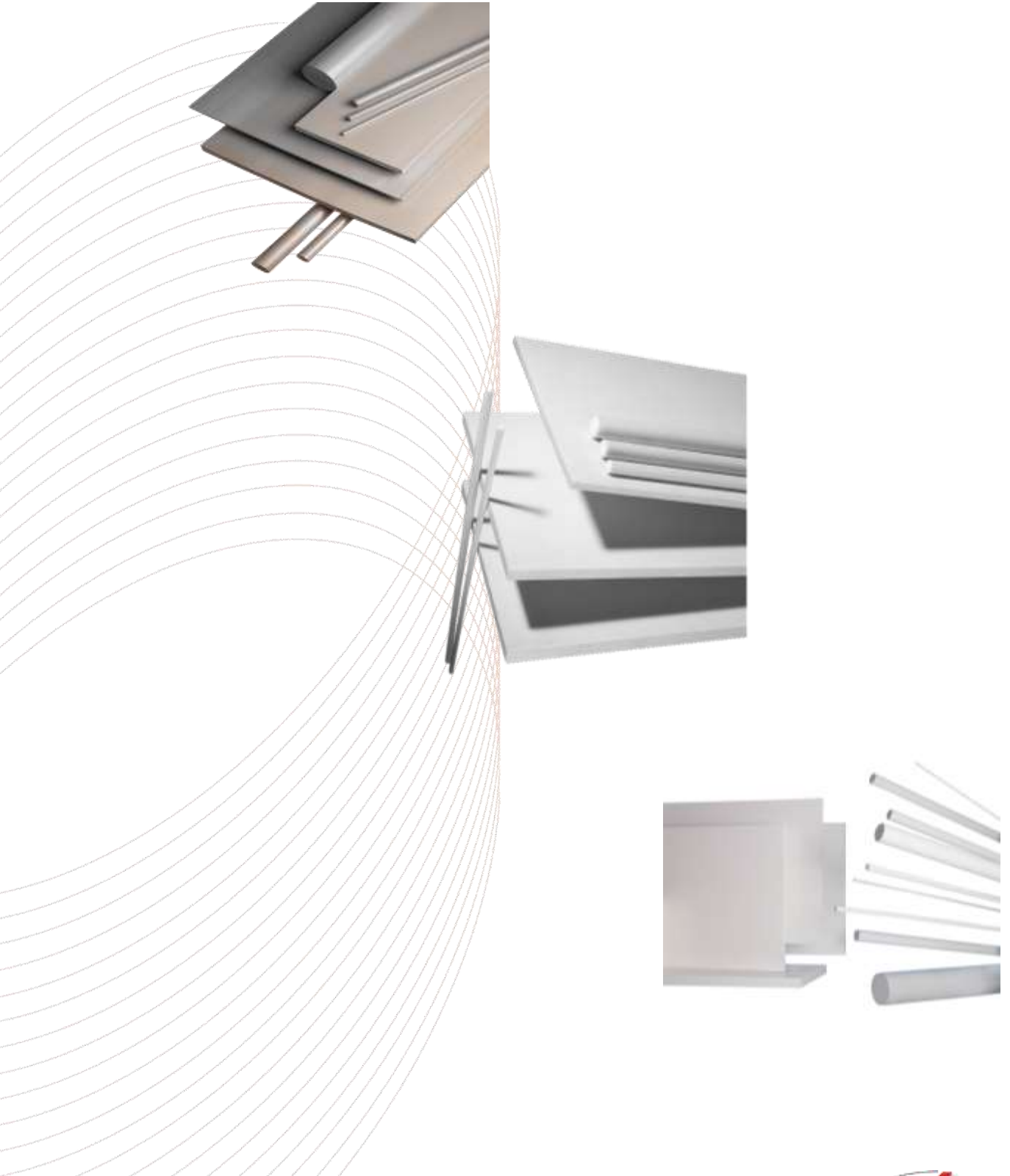
Especially for the mass application of standard plastics PE, PP, and PVC in areas such as container construction, chemical plant construction, electrical distribution construction, bunker and hopper construction, earth and tunnel construction, etc., we continuously strive to optimize our supplier pool to consistently create a competitive advantage for our customers.

We supply sheets in standard formats and thicknesses, as well as according to customer requirements, either as cut-to-size pieces or in processed form as finished parts.

For proper welding according to DVS standards, we supply welding additives in the appropriate MFR (melt flow rate) as wires on spools, in bundles, or as rods.

We also offer suitable equipment, welding, and bending machines for optimal processing of the sheets. Details of the available sheet materials and their respective thickness ranges can be found in our delivery overview.

Semi-finished products - Sheets



Semi-finished products - Solid Rods

Primarily for the machining industry, we supply round/solid rods, as well as square, flat, and hexagonal rods made from various materials, depending on the specific requirements and needs of our customers.

With our years of experience in machining, we also provide material-specific machining recommendations upon request.

To offer you the best possible quality, our round rods not only have excellent concentricity but also are manufactured with tolerances that are often much tighter than those specified in the corresponding DIN/EN standards.

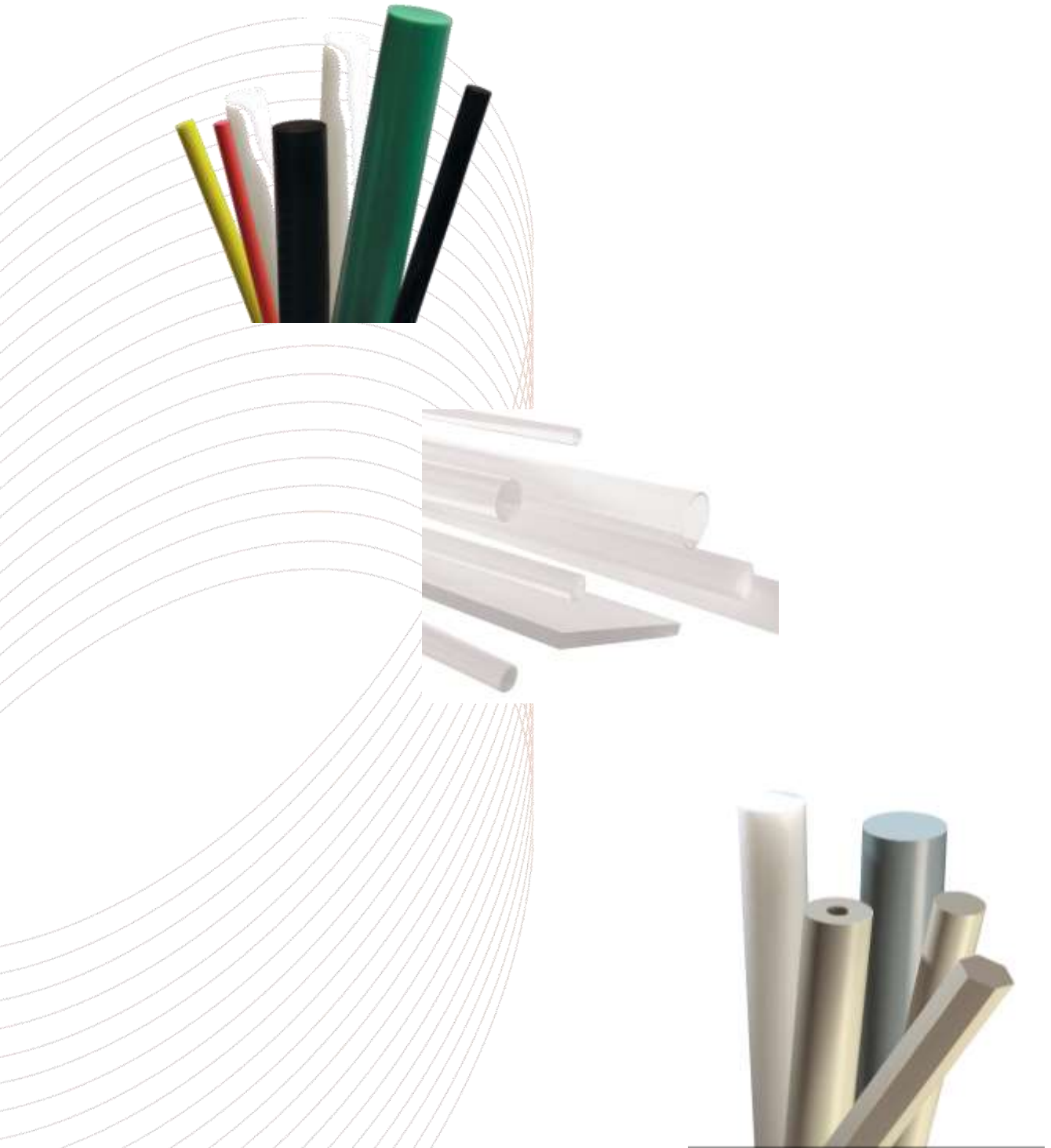
Upon request, we can also supply solid rods in a ground finish, with possible tolerances ranging from ± 0.05 mm, depending on the material and diameter, subject to agreement.

To prevent any unpleasant surprises during your machining process, many of the rods we supply undergo ultrasonic testing during production to detect any possible inclusions.

High-temperature materials are always annealed (stress-relieved).

You can find the materials we supply as solid rods in the corresponding diameter ranges in our delivery overview.

Semi-finished products - Solid Rods



Semi-finished products - Hollow Rods

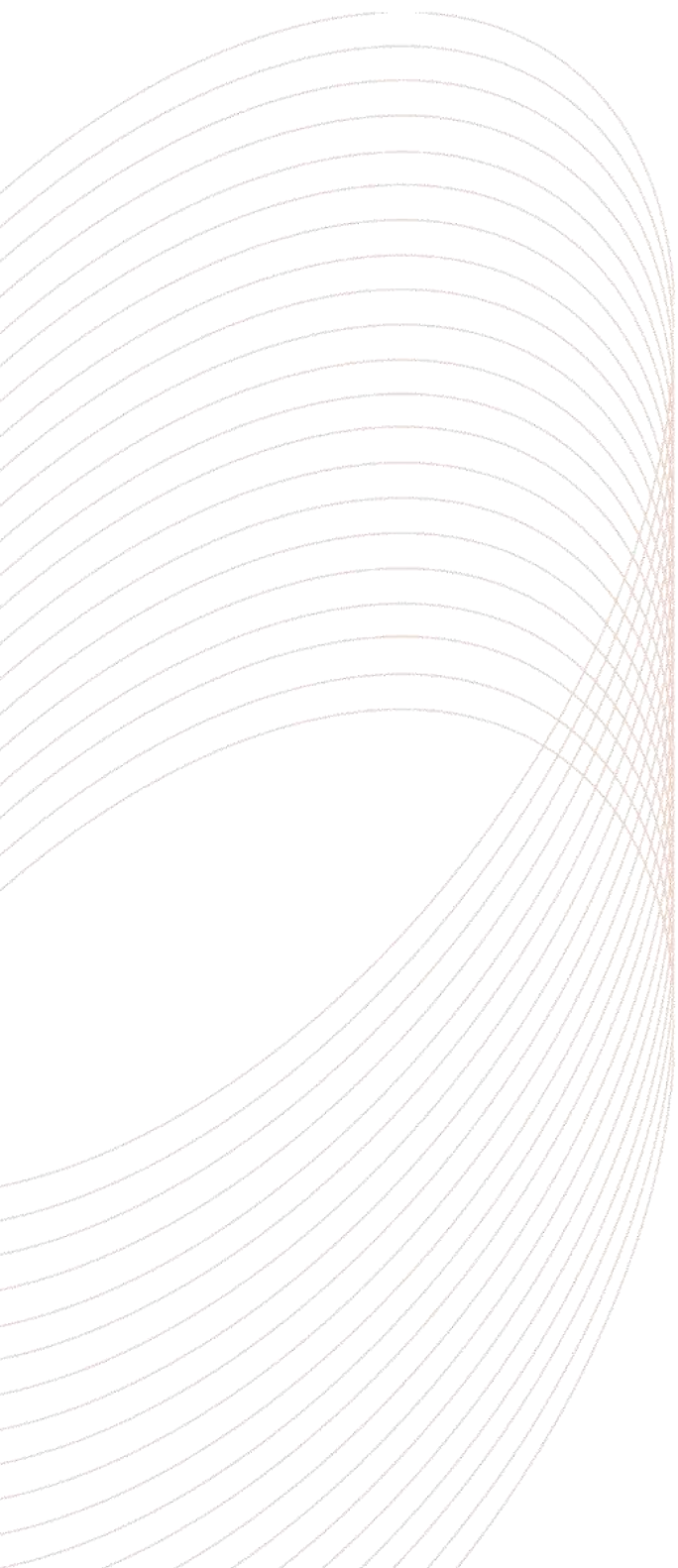
Wherever our customers in the machining industry produce hollow-turned parts, which typically require time-consuming pre-processing through core drilling or turning, our extensive range of hollow rods in various materials is the ideal solution.

The hollow rods we supply have impeccable concentricity and are delivered with so-called nominal diameters. This means that for you as the processor, the outer diameter is always in the positive range and the inner diameter is always in the negative range. This ensures that you, as the customer, can always achieve the specified nominal dimensions.

The delivery tolerances are often much tighter than those of the corresponding DIN/EN standards. Details on this are available upon request.

Please refer to our delivery overview for details on the materials and sizes of hollow rods we offer.

Semi-finished products - Hollow Rods



Semi-finished products - Profiles

Our range of profiles primarily includes standard profiles.

By this, we mean standardized

- equal or unequal angle
- (L) profiles,
- U-profiles,
- T-profiles,
- H-profiles,
- square and rectangular tubes,
- square bars,
- flat bars, and
- hexagonal bars.

The materials available are **PVC-U**, **PE-HD**, and **PP-H**, which are commonly used in apparatus and chemical plant construction as well as in electrical engineering.

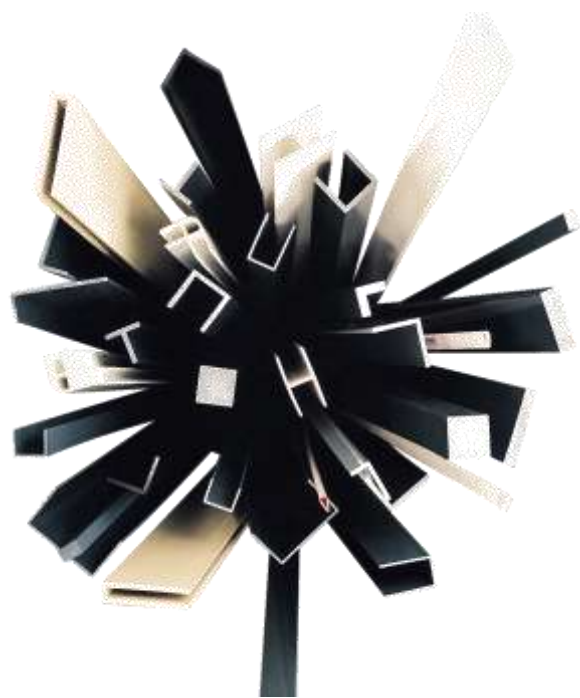
Standard profiles are usually kept in stock and supplied in standard lengths.

In addition to standard profiles, we also supply custom profiles made from other plastics.

Since these are always custom-made according to customer drawings, the minimum order quantities due to production requirements need to be inquired about in advance.

Please refer to our delivery overview for information on which standard profiles are available in which materials.

Semi-finished products - Profiles



Semi-finished products - Sight tube

Sight tubes made of chemically highly resistant PVC-U (rigid PVC) are transparent round pressure tubes, which are used in most cases for monitoring liquids and gases in apparatus and chemical plant construction.

Sight tubes made of particularly brilliant acrylic glass (PMMA) are available from us in extruded and/or cast versions, depending on the dimensions, in clear, opaque, frosted, or colored finishes.

They are predominantly used in decorations or sales aids (displays) and in lighting technology.

Where particularly high impact resistance is required in combination with transparency and high heat resistance, we can supply PC tubes from Ø 8 - 250 mm by arrangement.

For applications requiring extremely high impact resistance in combination with reduced stress crack formation, we also supply tempered PC tubes on a project-specific basis.

Please refer to our delivery overview for information on which materials are available in which form..

Semi-finished products - Sight tubes



Semi-finished products - Delivery Overview

Material designation according to DIN/ISO	+										
	PANELS, SHEETS, BLOCKS	FOILS SHEETS	ROUND (SOLID) RODS	HEXAGONAL RODS	HOLLOW RODS	PRESSURE & SIGHT PIPES	VENTILATION	COMPONENTS	WELDING ADDITIVES	SHAPED PIPES	STANDARD PROFILES
	Standard dimensions (mm)						Additional delivery options				
Thickness 1)	Thickness 1)	ODØ 2)	LW	ODØ 3)	ODØ 4)	(✓ = available / - = no)				Type of profile	
BIO-Polymere div.	-	-	10-40	-	-	-	-	-	-	-	✓
PVC-U (Hard-PVC)	1-100	-	5-400	10-38	15-230	10-600	✓	✓	✓	-	U/L/H/T
PVC-HI	3-50	-	20,30,40	-	-	-	-	-	-	-	-
PVC-ESD	-	-	20,30,50	-	-	-	-	-	-	-	-
PVC-Hardfoam	1-24	-	-	-	-	-	-	-	-	-	-
PVC-C	3-30	-	10-150	-	-	16-500	-	✓	-	-	L
PVC-P (Soft-PVC)	-	2-10	-	-	-	-	-	✓	-	-	-
PE-HD (PE 300)	2-120	-	10-700	17-38	30-1350	10-1400	✓	✓	✓	-	U/L
PE-HMW (PE 500)	10-100	-	-	-	-	-	-	-	-	-	-
PE-UHMW (PE 1000)	3-100	-	20-200	17-38	-	-	-	-	-	-	-
PP-H	2-120	-	10-700	17-32	30-1350	10-1400	✓	✓	✓	-	U/L
PPs	3-20	-	20-100	-	-	-	✓	✓	-	-	-
PPs-EL	3-20	-	20-80	-	-	-	-	✓	-	-	-
PP-GF30	40	-	20-150	17-38	-	-	-	-	-	-	-
PP-PET-F30	-	-	25-100	-	-	-	-	-	-	-	-
PP-C	3-15	-	-	-	-	-	-	✓	-	-	-
PP-R	-	-	-	-	-	-	-	✓	-	-	-
PP-ESD	-	-	20-110	-	-	-	-	-	-	-	-
ABS	15-100	-	10-100	-	-	-	-	-	-	-	-
PET (PETP)	10-80	-	12-200	17-38	-	-	-	-	-	-	-
PMMA-XT	-	-	4-200	-	-	7-250	-	-	-	-	-
PMMA-GS	-	-	10-200	-	-	40-500	-	-	-	-	-
PC	15-50	-	10-180	17-38	-	10-200	-	-	-	-	-
PPE	10, 20	-	20-80	-	-	-	-	-	-	-	-
PPE-GF30	-	-	30, 40	-	-	-	-	-	-	-	-
PA 6 xt	2-100	-	6-300	17-38	20-100	-	-	-	-	-	-
PA 6.6	10-50	-	6-150	17-38	-	-	-	-	-	-	-
PA 6 cast	16-100	-	50-320	-	-	-	-	-	-	-	-
PA 6.6-GF30	10-100	-	20-150	-	-	-	-	-	-	-	-
POM-C	2-130	-	3-500	17-38	20-200	20-450	-	-	-	-	-
POM-ESD	12, 20	-	-	-	-	-	-	-	-	-	-
POM-ELS	30, 50, 80	-	12, 20, 30	-	-	-	-	-	-	-	-
POM-PE10	10-50	-	20-100	-	-	-	-	-	-	-	-
PEEK	8-50	-	5-200	17-38	-	-	-	-	-	-	-
PEEK mod.	10, 20	-	10-80	-	-	-	-	-	-	-	-
PEEK-GF30	-	-	10100	-	-	-	-	-	-	-	-
PES	-	-	12-100	-	-	-	-	-	-	-	-
PSU	-	-	20-100	-	-	-	-	-	-	-	-
PPS	-	-	20-50	-	-	-	-	-	-	-	-
PPS-GF40	-	-	20-50	-	-	-	-	-	-	-	-
PPSU	-	-	20-40	-	-	-	-	-	-	-	-
PEI	-	-	25-100	-	-	-	-	-	-	-	-
PVDF	2-60	-	10-250	17-38	110-250	16-400	✓	✓	-	-	-
PVDF-ELS	-	-	20-60	-	-	-	-	-	-	-	-
ECTFE	1,5/2,3/3	1,5/2,3	25-127	-	-	20-110	✓	✓	-	-	-
PCTFE	5-30	-	9-125	-	30-430	-	-	-	-	-	-
FEP	5-30	1,5-2,3	9-125	-	-	32-110	-	✓	-	-	-
PFA	5-30	1,5-2,3	9-125	-	-	16-32	-	✓	-	-	-
PTFE-virg.	1-50	0,5-3	4-775	-	10-1440	10-80	-	-	-	-	-
PTFE-C25	1-50	0,5-3	4-775	-	10-1440	10-80	-	-	-	-	-
PTFE-GF25	1-50	0,5-3	4-775	-	10-1440	10-80	-	-	-	-	-

1) Standard formats, 2) Standard length, 3) Inner diameter and length as well as 4) Wall thickness (if applicable, pressure series) and length on request.

Minimum quantities, standard formats, designs, colors, cuttings, and machined parts according to drawing are available on request.

This overview illustrates our delivery options for standard products and does not claim to be complete and accurate.

As a specialist company, we also supply machinery, equipment, and accessories for plastic welding, joining, bending, and folding technology.

Semi-finished products - Delivery Overview



Plates and bars made of
PA 6, PA 6.6, PA 6.6 GF30



Plates and bars made of
POM-C, POM-ESD, POM-AS



Plates and bars made of
PET (PETP)



Plates and bars made of
PVC-U, PVC-C



Plates and bars made of
PP-H, PP-C



Plates and bars made of
PE-HD (PE80, PE100), PE-UHWM



Plates and bars made of
PEEK, ECTFE, PCTFE, PTFE, FEP, PFA



Plates and bars made of
ABS



Pipes and bars made of
PMMA



Standard profiles and shaped pipes made of
PVC-U, PE-HD, PP



Pipes and bars made of
transp. PVC-U



Plates and bars made of
PC (Industriequalität)

Finished parts

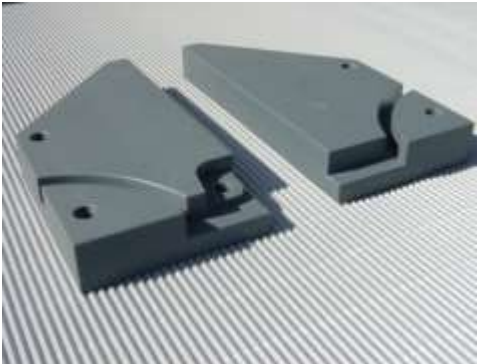
After your sketches, drawings, or CAD drawings (in DWG or DXF format), we provide finished components made from various technical plastics using state-of-the-art CNC machines.

Small or large series as well as prototypes of small CNC milled parts to chain slides, chain guides, large milled guide rails, or even turned parts are available from us.

Due to our extensive experience in the processing of plastics, only plastics that are clamped, processed, and cooled using air in a manner appropriate to the material are processed on the machines.

This guarantees our customers stress-free, highly precise, and clean parts.

Finished parts



Ventilation molded parts

Ventilation molded parts made of plastics are needed wherever plastic ventilation ducts are laid due to corrosion resistance or abrasion resistance.

As a specialized company, we offer these ventilation molded parts made of various chemically highly resistant and abrasion-resistant plastics such as PVC, PPs, PP, PE, and PVDF.

Patented manufacturing processes guarantee excellent fit and dimensional accuracy. In our specialized catalog, you will find all the molded parts needed for steering, distribution, and regulation of airflows up to PN 2.5.

Naturally, pipe silencers and volume flow controllers are also available in our extensive product range.

Molded parts with dimensions in the range of pipe diameters Ø50 to Ø600 mm are available at short notice.

Larger diameters can be custom-made by segment welding upon request. All molded parts are supplied with sockets as standard but can optionally be equipped with flanges.

The airtight connection from pipe to molded part with socket depends on the material. Typically, this is done by bonding with solvent adhesive, welding with hot air and auxiliary wire, or with special adhesive/sealing tapes.

Ventilation molded parts



Machinery & equipment I

As a complete provider in the field of plastic sheet processing, processing machinery and equipment are another core component of our portfolio.

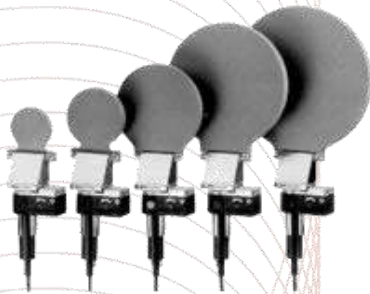
To enable our customers to gain competitive advantages in their production, we supply machines and equipment that are exclusively manufactured in the EU core area and have an excellent price-performance ratio.

Our goal is to deliver solid, durable, and cost-effective solutions at the highest technical level. Especially when facing new technical challenges and special productions, we are happy to explore new innovative approaches with our customers.

The spectrum of our range for plastic welders, professional plastic processors, and tank builders includes devices such as:

- Hot gas / hot air welding machines
- Hand extruders for welding
- Welding mirrors
- Bending and folding machines
- Table heating elements
- Tarpaulin welding machines
- Weld seam testing devices

Machinery & equipment I



Machinery & equipment II

For customers seeking machines for mass production, we can offer the following robust processing machines:

- Bending machines
- Butt welding machines
- Container manufacturing systems
- Welding robots
- Pipe welding machines
- Tarpaulin welding automatons

Furthermore, for tank and pipeline builders, we provide professional Windows-based calculation programs based on the international standard DVS 2205 Part 1-5.

This allows for precise wall thickness calculations for vertical round and rectangular containers under pressure, in conjunction with reinforcements, as well as for ventilation ducts.

As a result, a container drawing with a pre-checked static printout containing all necessary information for regulatory approval can be generated.

Machinery & equipment II



Sustainability **BIO-AKU®**

Sustainability through biopolymers and recycled materials like recycled plastics

At Ahlborn Kunststoffe, we view sustainability as a fundamental pillar of our company.

As suppliers of plastic products, we recognize the responsibility we have towards the environment and future generations.

Therefore, we have decided to incorporate sustainable products into our portfolio.

A central concern is reducing our ecological footprint.

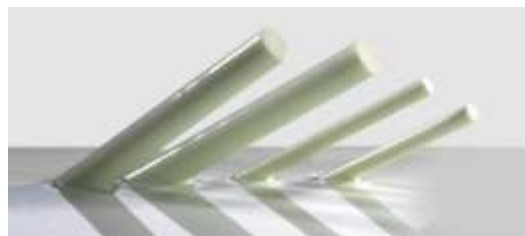
We are committed to optimizing the use of plastics while minimizing environmental impacts.

This is achieved through promoting recycled products, developing innovative materials, and improving market acceptance to use resources more efficiently.

Since the field of biopolymers is still relatively young, the number of materials is rapidly growing. The possibilities that arise from this are diverse and far from exhausted.

Simply contact us and inquire about alternatives and market advantages through BIO-AKU® products.

BIO-AKU® products are products for our own future and the future of our children.





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