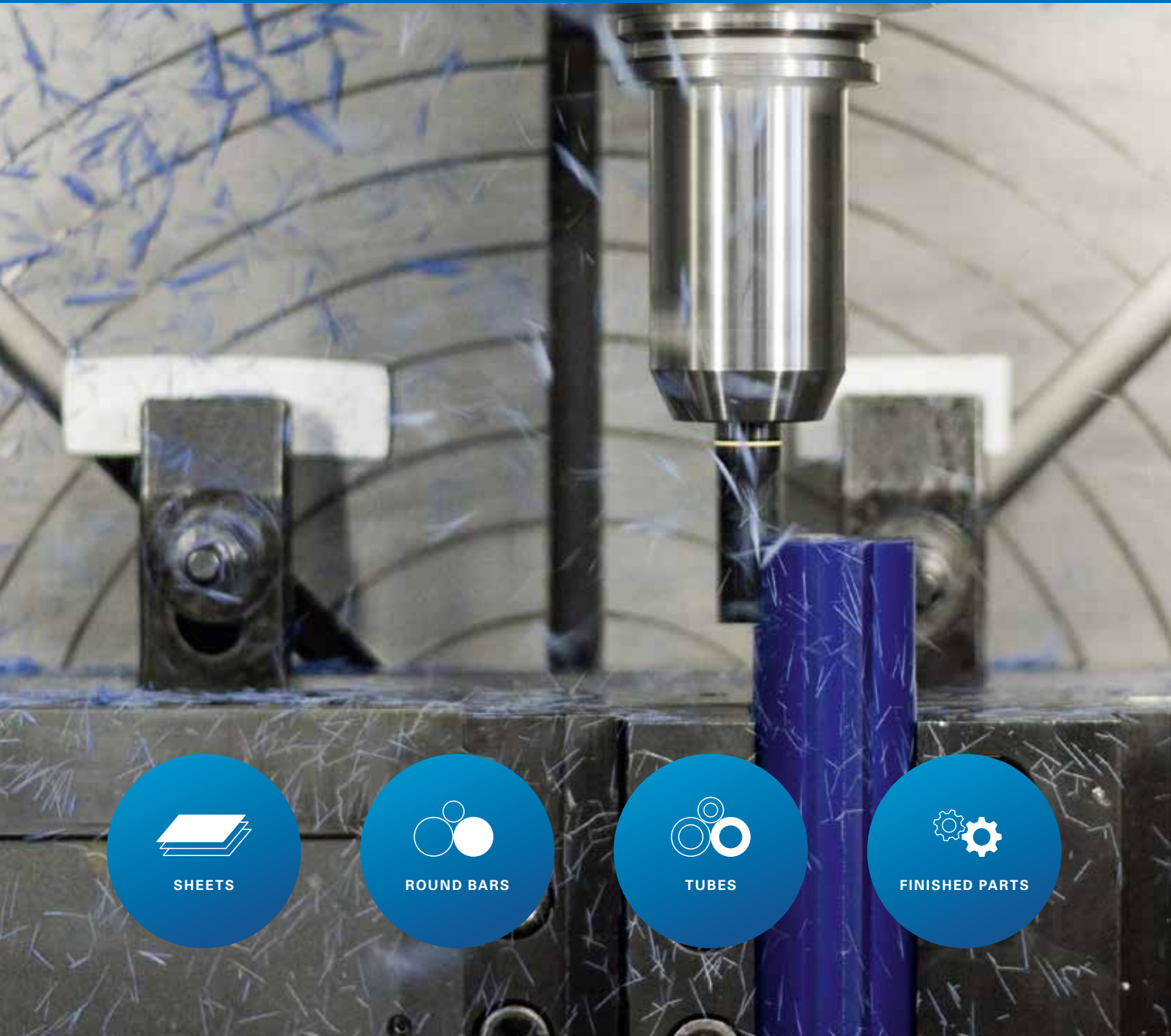


COMCOEPP

Engineering Plastic Products

Delivery Program Finished Parts

Premium materials of the highest quality.



SHEETS



ROUND BARS



TUBES



FINISHED PARTS

Better solutions, better relationships

We produce plastic stock shapes and engineer tailor made solutions.

COMCO EPP GmbH – Engineering Plastic Products is your expert partner for thermoplastic and thermosetting plastics. – with 40 years of experience.

At our production facilities in Hallein near Salzburg (Austria), Fachbach near Koblenz (Germany), Seoul (South Korea) and Dubai (United Arab Emirates), we draw on experience reaching back to the late 1970s (under the former company name Mertl Kunststoffe und Comco Plastik) to manufacture standard and custom-made semi-finished products, moulded castings and finished parts.

WE PRODUCE:

- Sheets and blanks
- Round bars and segments
- Blocks, discs and tubes
- Moulded parts
- Finished parts according to your drawings

Our in-house CNC centres are dedicated to the machining production of customer-specific finished parts in thermoplastic and thermosetting plastics. Whether individual parts or entire production runs: you can rely on consistently high quality.

Our semi-finished products centre supplies you with the products and materials you will find in these pages.



Our company is certified according to ISO 9001:2015 and ISO 14001:2015.

Thermoplast

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Duroplast

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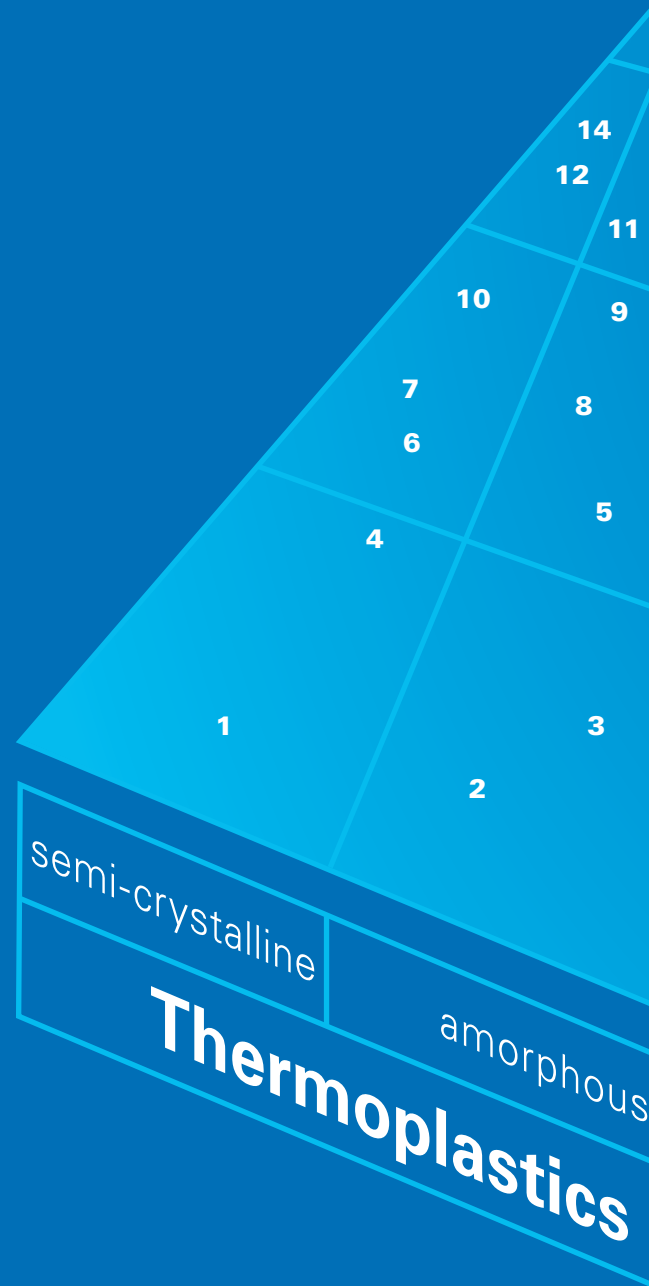
COMCO EPP stands for premium thermoplastic materials and the highest quality standards.

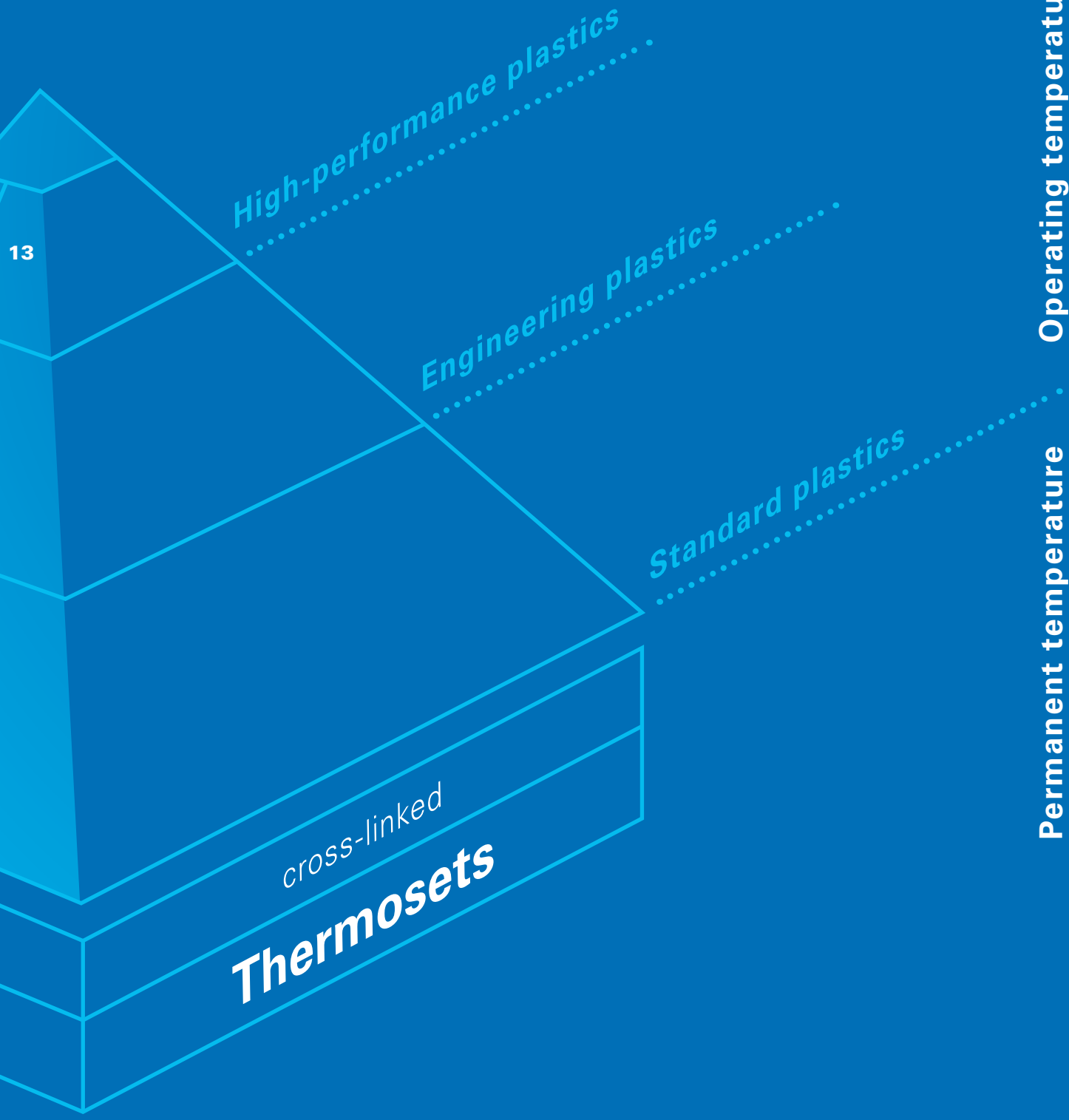
Our thermoplastic plastics can be classified according to their structure into amorphous and semi-crystalline materials.

The material pyramid below organizes our range of thermoplastic materials based on their thermal load capacity.

MATERIAL PYRAMID LEGEND

- | | |
|----|--------------------------------|
| 1 | POLYOLEFINS – PE, PP |
| 2 | ACRYLIC GLASS – PMMA |
| 3 | STYRENE PLASTICS – PS, ABS, SP |
| 4 | PE-UHMW |
| 5 | POLYCARBONATE – PC |
| 6 | POLYAMIDES – PA |
| 7 | POLYACETALS – POM |
| 8 | POLYESTER – PET |
| 9 | POLYSULFONE – PSU |
| 10 | POLYESTER – PETP, PBTP |
| 11 | POLYETHERIMIDE – PEI |
| 12 | FLUOROPLASTICS – PTFE, PVDF |
| 13 | POLYPHENYLSULFONE – PPSU |
| 14 | PEEK – PEK, PEEK, PEKEKK |





Our thermoplastic materials

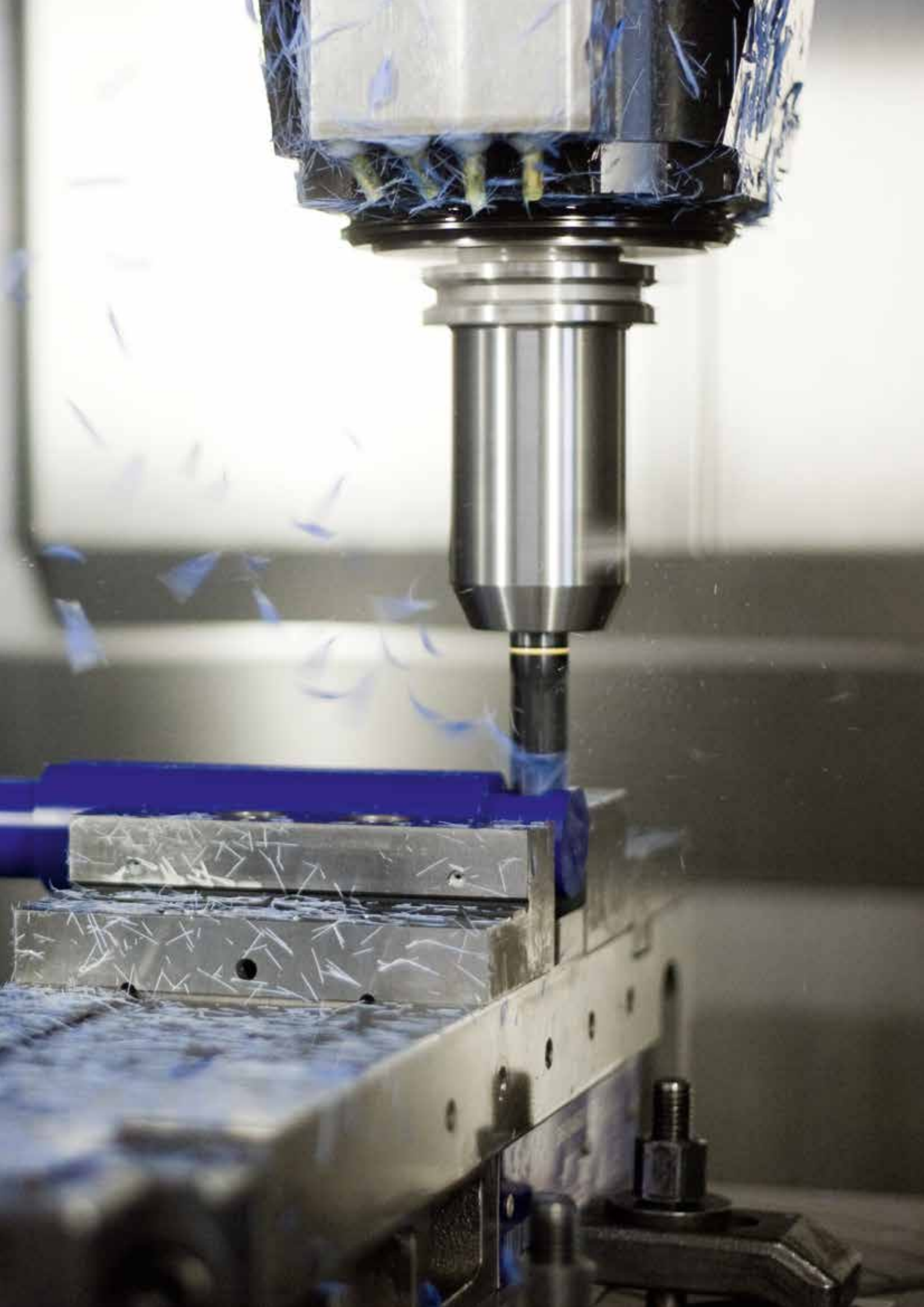
Factory designation	Abbreviation
COMCO-Premium 1000	PE-UHMW
COMCO-Premium 1000 AST	PE-UHMW Antistatic
COMCO-Premium 1000 slide	PE-UHMW Slide-modified
COMCO-Classic 1000	PE-UHMW-R
COMCO-Classic 1000 AST	PE-UHMW-R Antistatic
COMCO-Classic 1000 slide	PE-UHMW-R Slide-modified
COMCO-Premium 500	PE-HMW
COMCO-Classic 500	PE-HMW-R
COMCO-Premium 300	PE-HD
COMCO-Classic 300	PE-HD-R
COMCO-Premium PP-H	PP-H
COMCO-PVC-U	PVC-U
COMCO-PAX46	PA 4.6
COMCO-PAX6	PA 6
COMCO-PAX6 GF 30	PA 6 GF 30%
COMCO-PAX66	PA 6.6
COMCO-PAX66 GF 30	PA 6.6 GF 30%
COMCO-PAX12	PA 12
COMCO PA6 FR-V0	PA6 FR-V0
COMCO-PAC6 natural / ivory	PA 6 G natural / ivory
COMCO-PAC6 Mo black	PA 6 G Mo black
COMCO-PAC6 Color	PA 6 G Color
COMCO-PAC6 MOL anthracite – black	PA 6 G MOL anthracite – black
COMCO-PAC6 OL	PA 6 G OL Slide-modified
COMCO-PAC6 Wax gray	PA 6 G Wax gray
COMCO-PA6C Mod. / Powerglide	PA 6 G Mod. / Powerglide
COMCO-PAC6 Heat blue	PA 6 G Heat blue
COMCO-PAC6 High Impact	PA 6 G High Impact
COMCO-POMC	POM C
COMCO-POMC Blue RAL5002	POM C Blue RAL5002
COMCO-POMC ESD AST	POM C Antistatic
COMCO-POMC ELS EC	POM C Conductive

Factory designation	Abbreviation
COMCO-PET	PET
COMCO-PET slide	PET Slide-modified
COMCO-PEEK	PEEK
COMCO-PEEK ELS EC	PEEK Conductive
COMCO-PEEK CF30	PEEK Carbon Fibres 30%
COMCO-PEEK GF30	PEEK Glass Fibres 30%
COMCO-PEEK HPV	PEEK HPV
COMCO-TF rein	PTFE rein
COMCO-TF Mod. 15% glass	PTFE Mod. 15% glass
COMCO-TF Mod. 15% graphine	PTFE Mod. 15% graphine
COMCO-TF Mod. 15% coal	PTFE Mod. 15% coal
COMCO-TF Mod. 25% glass	PTFE Mod. 25% glass
COMCO-TF Mod. 25% coal	PTFE Mod. 25% coal
COMCO-TF Mod. 5% glass + 10% graphite	PTFE Mod. 5% glass + 10% graphite
COMCO-TF Mod. 5% glass + 10% coal	PTFE Mod. 5% glass + 10% coal
COMCO-PVDF	PVDF
COMCO-PEI	PEI
COMCO-PPSU	PPSU
COMCO-PPSU MG	PPSU MG
COMCO-PSU	PSU

POLYIMIDE variants

Polyimid N
Polyimid G15
Polyimid G40
Polyimid MoS
Polyimid ESD

You can find more materials at www.comco-epp.com



COMCO EPP – Product lines “Premium” & “Classic” based on PE-UHMW, PE-HMW, and PE-HD

The thermoplastics of our Premium and Classic product lines (formerly MK-Premium & MK-Classic) are based on PE-UHMW, PE-HMW, and PE-HD. These are engineering plastics successfully used in numerous industries to solve problems related to friction, wear, and material flow.

These materials are characterized by excellent sliding properties, high wear resistance, exceptional impact strength, and very good chemical resistance – and have proven themselves in a wide range of technical applications.



COMCO Premium 1000 / PE-UHMW

Ultra-high molecular weight polyethylene with a molecular weight of 4,000,000 to 8,000,000.

+ Very high wear and abrasion resistance, low coefficient of friction, excellent notch impact strength

Standard colors: natural, green, black



COMCO Classic 1000 / PE-UHMW-R

Regrind type based on ultra-high molecular weight polyethylene powder and finely ground COMCO Premium 1000.

+ Very high wear and abrasion resistance, low coefficient of friction, excellent notch impact strength

Standard colors: green, black

Application examples:

Our materials COMCO Premium 1000 and COMCO Classic 1000 are excellently suited for a wide range of technical components in general machine and plant engineering.

Typical applications include:

- + Sliding and conveyor elements
- + Drivers
- + Screw conveyors

...and many other structural components with high demands on wear resistance and sliding properties.



COMCO Premium 500 / PE-HMW

High molecular weight polyethylene with a molecular weight above 500,000.

- + Enhanced mechanical properties, good sliding and wear resistance, high cut and scratch resistance, physiologically safe

Standard colors: natural, yellow, reddish-brown, red, blue, green, gray, black

Application examples:

COMCO Premium 500 is a high molecular weight polyethylene with good mechanical properties, especially high scratch and cut resistance, as well as excellent resistance to acids.

Typical areas of use include:

- + Food and slaughterhouse industry
- + Cold storage and shopfitting

Other applications with hygienic requirements and mechanical stress.



COMCO Premium 300 / PE-HD

High-density polyethylene with a molecular weight above 250,000.

- + Very good welding and processing properties, high elongation at break, especially suitable for container and apparatus construction

Standard colors: natural, black



COMCO Premium PP / PP-H

Isotactic, high heat-resistant polypropylene.

- + High stiffness, very good welding and processing properties, particularly suitable for container and apparatus construction

Standard colors: gray, natural

COMCO PVC-U / Rigid PVC

Extruded, unplasticized polyvinyl chloride (PVC-U).

- + Normally impact-resistant, high resistance to acids, alkalis, and salt solutions, good processability through welding, thermoforming, and bonding

Standard colors: gray, red, black



Application examples:

The materials COMCO Premium 300, COMCO Premium PP, and COMCO PVC-U find versatile applications in apparatus, machinery, and plant engineering—both for large-sized and smaller structural components. These materials are especially commonly used in container construction for chemical and environmental technology, where chemical resistance and good processability are critical.

COMCO PAX / PA 6 E

Extruded polyamide (PA 6)

Engineering materials for mechanical engineering

The materials COMCO PAX (extruded polyamide) and COMCO PAC (cast polyamide) are versatile engineering plastics used in mechanical and plant engineering.

They combine an optimal mix of:

- + Mechanical strength
- + Stiffness and impact resistance
- + Good sliding properties and abrasion resistance

Through various modification options, the properties of these materials can be specifically adapted to meet particular requirements. This makes COMCO PAX and COMCO PAC ideal construction materials for demanding applications in mechanical engineering.

COMCO PAX46/PA 4.6

Technical high-performance plastic with very good aging resistance—ideal for components with high mechanical stress and continuous temperature exposure between 80 °C and 150 °C.

- + High mechanical strength, stiffness, and hardness; good toughness and fatigue resistance; excellent creep resistance even at elevated temperatures; significantly improved retention of stiffness compared to standard polyamides

Standard color: reddish-brown

Application examples: spool bodies, switches, sensors, and parts for electric motors



COMCO PAX6/PA 6 E

Extruded polyamide 6 with a balanced property profile—versatile for industrial applications. The combination of good sliding properties and high abrasion resistance makes COMCO PAX6 a proven material for dynamically loaded components.

- + High dynamic load capacity, good emergency running properties, very good machinability

Standard colors: natural, black

Application examples: technical parts in mechanical engineering such as rollers, bearings, sliding elements, gears, sealing discs, valves



COMCO PAX66 / PA 6.6

Polyamide 6.6 with higher mechanical performance compared to COMCO PAX6. The material is characterized by increased hardness, strength, stiffness, as well as higher continuous use temperature and heat resistance. The natural-colored version is food-compliant according to applicable regulations. Additionally, COMCO PAX66 offers good long-term properties regarding thermal aging and reduced creep tendency.

+ Higher mechanical strength and heat resistance, good thermal aging resistance, low creep tendency, food-compliant in natural (cream) color

Standard colors: natural (cream), black

Application examples: Mechanically and thermally stressed parts in machine and apparatus engineering, sliding bearings, spool bodies, gears, guide rails



COMCO PAX66 GF30 / PA 6.6 GF 30%

Glass fiber reinforced polyamide 6.6 for highly stressed structural parts. COMCO PAX66 GF30 was specifically developed for applications requiring high stiffness, compressive strength, and excellent creep resistance—even under elevated temperature stress.

+ High stiffness and hardness, very good dimensional stability and compressive strength, excellent heat resistance, low creep tendency under continuous load

Standard color: black

Application examples: Particularly suitable for electrically and mechanically stressed machine parts exposed to continuous heat requiring high strength.



COMCO PAX12 / PA 12 E

Extruded polyamide 12 with particularly low water absorption—ideal for applications with the highest demands on dimensional stability and vibration damping. Within the COMCO PAX & PAC material group, COMCO PAX12 has the lowest moisture absorption and therefore remains dimensionally stable even under changing environmental conditions. The material also offers noise and vibration damping properties as well as excellent fatigue resistance under high-frequency load changes.

+ gLow density, high impact strength, very good chemical resistance, noise and vibration damping, excellent dimensional stability under moisture influence, good machinability due to homogeneous extrusion quality

Standard colors: natural, black

Application examples: Bearing and gear parts, sealing and damping elements, rollers



COMCO PA6 FR-V0

Flame-retardant Polyamide 6

Unreinforced. Halogen-free. For the highest safety requirements.

COMCO PA6 FR-V0 is a flame-retardant polyamide 6 designed for special applications where stringent fire behavior requirements apply. The material is unreinforced, halogen-free, free of red phosphorus, and meets the strict requirements of the UL94 V0 fire classification. Additionally, it complies with the rail standard DIN EN 45545-2 for public rail transport.

A specially developed manufacturing process significantly improves the material's homogeneity—enabling particularly good machinability and clean processing in mechanical manufacturing.

Typical properties:

- + Flame retardant according to UL94 V0, meets requirements of DIN EN 45545-2 (rail standard), halogen- and phosphorus-free (no red phosphorus)
- + Good machinability due to improved material homogeneity
- + Good dimensional stability during mechanical processing
- + Good chemical resistance against fats, oils, and fuels
- + Temperature resistant within the typical PA6 application range

Standard color: black (natural on request)

Application examples: COMCO PA6 FR-V0 is used wherever safety-relevant components with defined fire behavior are required—especially in the areas of transport, energy, infrastructure, and industry.

+ Rail transport (according to DIN EN 45545-2):

- + Cable clamps
- + Sliding elements
- + Emergency spring washers

+ Other industrial applications with increased fire protection requirements:

- + Shipbuilding
- + Mining
- + Oil & gas plants
- + Vehicle manufacturing (e.g., housings, brackets)
- + Electrical components in safety-critical environments

Approvals:

Standards:

- + UL94
- + EN45545-2
(02/2016; 10/2020)

Classifications:

- + V0
- + R22, R23, R24, R26

Additional approvals available upon request!



COMCO PAC / COMCO Powerglide

Polyamide – cast (PA 6 G) | Thermoplastic

COMCO PAC6 natural / PA 6 G natural

COMCO PAC6 is a universally applicable material for mechanical engineering due to its high mechanical strength combined with sufficient toughness and very good machinability. The material can be modified with various additives to optimize properties for specific applications.

The casting process allows for diverse shapes, even for large-volume components.

Standard color: natural

Application examples: rollers, bearings, sheaves, gears



COMCO PAC6 Mo black / PA 6 G Mo black

PA 6 G Mo features improved crystallization and self-lubrication through the addition of molybdenum disulfide. Hardness is increased while general mechanical properties as well as friction and wear behavior are improved. The material is produced in black color.

Standard color: black



COMCO PAC6 MoS₂ anthracite – black / PA6 G MoS₂ anthracite – black

PA6 G MoS₂ is modified by the addition of molybdenum disulfide (MoS₂). Hardness is increased, and general mechanical properties as well as friction and wear behavior are improved. The modification also leads to improved crystallization and enhanced self-lubrication.

The material is produced in anthracite to black color.

Standard color: anthracite – black

Application examples: Universally applicable, hard material for general mechanical engineering.

COMCO PAC6 OL / PA 6 G OL slide-modified

PA 6 G OL is modified by incorporating a liquid lubricant that is evenly distributed in microscopic droplets throughout the material. This particularly improves stick-slip behavior and ensures smooth movement at low sliding speeds.

The material is ideal for slowly moving, dry-running sliding elements. Typical applications include bearing bushes, guides, and cam guides.

Standard colors: yellow, black (other colors available on request)

Application examples: Bearing bushes, cam guides at higher sliding speeds and low temperatures on the sliding surface.



COMCO PAC / COMCO Powerglide

Polyamide – cast (PA 6 G) | Thermoplastic

COMCO PAC6 Color / PA 6 G Color

Our premium cast polyamide 6 quality, specially colored for your application. PA 6 G Color is available in red, yellow, green, and blue—additional custom colors are available upon request.

Standard colors: red, yellow, green, blue

COMCO Powerglide green / PA 6 G slide-modified green

A material that delivers on its promises! Our COMCO Powerglide is the premium material for all kinds of sliding elements under high loads. Many technical applications require outstanding material properties! To achieve this, lubricant additives are integrated into the plastic matrix. The lubricant is continuously released at the contact surface and remains effective. Sliding performance is greatly improved without additional external lubrication, reducing friction and wear!

+ Enables higher loads and sliding speeds, extreme wear resistance, withstands high mechanical stresses, shows low deformation under mechanical loads, has high surface hardness, high strength and stiffness

Standard color: green



COMCO PAC High Impact / PA 6 G High Impact

Also produced by the pressureless casting process, this polyamide is a blend based on caprolactam (PA 6 G) and laurilactam (PA 12 G). Compared to pure PA 6 G, COMCO PAC High Impact exhibits lower water absorption and increased toughness. This improves dimensional stability, damping behavior under mechanical vibrations, and suitability for dynamically loaded components.

The material combines the advantages of both base polymers and impresses with high toughness even at low temperatures, excellent sliding and emergency running properties, as well as stable mechanical characteristics—even under demanding operating conditions.

+ Low water absorption – high dimensional stability, excellent damping under vibrations, high toughness down to –50 °C, very good sliding and emergency running properties, very good wear resistance

Standard color: natural-yellowish

Application examples: gears, entry and exit stars, running rollers



COMCO PAC12 / PA 12 G

COMCO PAC12 in its cast form is superior in properties to the extruded material COMCO PAX12.

+ Extremely low water absorption – excellent dimensional stability, stable mechanical properties, excellent damping behavior under mechanical vibrations, high toughness even at temperatures down to –50 °C, very good wear resistance, very good sliding and emergency running properties

Standard color: natural-yellow

Application examples: gears, racks, heavy-duty rollers



COMCO PAC6 Heat blue / PA 6 G Heat

This material is modified with a heat aging stabilizer and therefore has excellent resistance to thermal influences under load.

Standard color: blue

COMCO PAC6 Wax gray / PA 6 G Wax

The wax-modified cast polyamide 6 G shows better sliding properties than the unfilled type. Applications include sliding elements, guide pieces, and all kinds of sliding rails.

PA 6 G Wax is available in gray.

Standard color: gray

COMCO POM-C

Thermoplastics

COMCO POM-C / POM-C

COMCO POM-C is a semi-crystalline thermoplastic and belongs to engineering plastics with a wide range of applications. The smooth and hard surface combined with the highly crystalline structure makes COMCO POM-C especially suitable for sliding-loaded functional parts. Even under dry friction, only minimal wear is expected.

POM-C offers high mechanical load capacity, good machinability, and excellent dimensional stability—even with tight tolerances. Due to its extremely low moisture absorption, the material is particularly suited for parts used in humid environments or underwater. Wet conditions have little influence on its material properties.

Additionally, COMCO POM-C is resistant to a variety of organic solvents and chemicals. The material is physiologically safe and therefore suitable for contact with food.



COMCO POM-C Variants

+ COMCO POM-C GF

Glass fiber reinforced type with increased stiffness, strength, and dimensional stability.

+ COMCO POM-C Slide

Slide-modified type for reduced friction behavior and improved wear protection in moving applications.

+ COMCO POM-C ESD EC

Electrically conductive type for discharge-critical applications with high demands on safety and process stability.

+ COMCO POM-C ESD AST

Antistatic type to prevent electrostatic charging in sensitive areas of use.

+ COMCO POM-C Blue RAL 5002

The ideal material choice for high visibility and maximum product safety. The striking blue color RAL 5002 is not only visually distinctive but also serves an important purpose: plastic fragments can be more easily detected visually—a clear advantage for food processing applications.

COMCO POM-C Blue RAL 5002 complies with EU 10/2011 and FDA regulations and meets all requirements for use in direct food contact.

Application examples: sliding elements, gears, control discs, running wheels, bearings, pump parts

COMCO PET / COMCO PEEK / COMCO PVDF

Thermoplastics

COMCO PET / PET

COMCO PET is characterized primarily by its significantly lower thermal expansion and creep tendency compared to COMCO PAX or COMCO POM. It is a highly crystalline material with high strength. COMCO PET is highly wear-resistant and has good sliding properties, especially in combination with very smooth steel and aluminum surfaces.



COMCO PET Variants

+ **COMCO PET Slide** / PET slide-modified

Standard colors: natural, black

COMCO PEEK / PEEK

COMCO PEEK meets the highest demands regarding continuous use temperature, chemical resistance, sliding and wear behavior, radiation resistance, and fire performance. The semi-finished products are low-stress tempered and can be machined very well.

The broad application spectrum makes this high-performance plastic a versatile solution for demanding technical applications.

Standard color: brown-gray



COMCO PEEK Variants

+ **COMCO PEEK ELS EC**

Conductive type for antistatic and conductive applications.

+ **COMCO PEEK CF30 Black**

Carbon fiber reinforced type with increased stiffness and strength.

+ **COMCO PEEK GF30 Natural**

Glass fiber reinforced variant in natural (whitish-brown) for improved stability.

+ **COMCO PEEK HPV Black**

Highly wear-resistant and wear-optimized type in black.

Application examples: medical technology, aerospace, electrical industry, food industry

COMCO PVDF

Thermoplastics

COMCO PTFE pure / Virgin Teflon

COMCO PTFE pure (also known as Teflon, virgin Teflon, or PTFE) is a plastic with the highest chemical resistance and extremely low adhesion. It is a soft sintered material with low mechanical properties.

+ Resistant to almost all chemicals, very high continuous use temperature, flame retardant up to 260 °C, low coefficient of friction, extremely low adhesion, low strength and hardness, high sliding wear.

Standard color: natural



Application examples: seals, coatings, or sliding bearings (where low friction is required but no wear stress occurs)

PTFE Variants

- + PTFE modified with 15% glass
- + PTFE modified with 15% graphite
- + PTFE modified with 15% carbon
- + PTFE modified with 25% glass
- + PTFE modified with 25% carbon
- + PTFE modified with 5% glass + 10% graphite
- + PTFE modified with 5% glass + 10% carbon

COMCO PVDF / PVDF

COMCO PVDF is a semi-crystalline fluoroplastic with excellent chemical resistance, flame retardancy, and UV resistance. Unlike COMCO PTFE, COMCO PVDF is weldable and thermoformable.

The material is insensitive to high-energy radiation, has high aging and heat resistance, and is physiologically safe.

Standard color: natural



Application examples: parts in chemical apparatus construction, electrical, semiconductor, and food industries

If you have not found the material you need, please do not hesitate to contact us:

Phone: **+43 (0) 6245 70 000** Email: **info@comco-epp.com**

COMCO PEI

Thermoplastics



Our PEI quality plastics

This semi-transparent amorphous thermoplastic offers excellent steam and water vapour properties, heat resistance and extraordinary dielectric properties. Its constant operating temperature is about 170 °C. PEI is ideal for applications that require reliable resilience and stability at high temperatures.

Applications of PEI:

- Components exposed to microwaves
- Electric insulating components
- Components of glass production equipment
- Components of steam jet cleaning devices
- Heat insulating hoses

Characteristics:

- High heat resistance
- High steam resistance
- Excellent dielectric strength
- Non-flammable

Please note that due to the characteristics of non-crystalline plastics, PEI has relatively low chemical resistance, creep resistance and wear resistance. Grooved areas such as corners or edges should be rounded to avoid cracking and chipping.

COMCO PSU

Thermoplastics



Our PSU (Polysulfone)

Polysulfone (PSU) is a high-performance thermoplastic known for its heat resistance, chemical resistance, and dimensional stability, making it suitable for various applications. It's a translucent material with a slight amber or yellowish tint and is often used in food handling equipment, lab equipment, and chemical processing equipment.

Application of PSU:

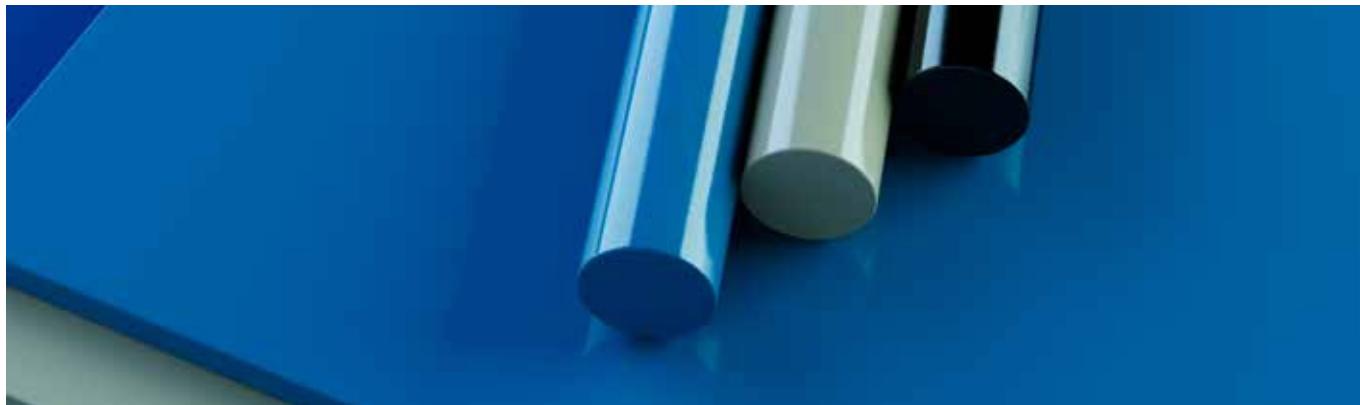
- Food handling equipment
- Laboratory and Medical Devices
- Aerospace
- Membrane Housing & Water Filtration

Characteristics:

- High heat resistance
- Creep Resistance
- Radiation Resistance
- Chemical Resistance
- Sterilization Resistance
- Dimensional Stability

COMCO PPSU / PPSU MG

Thermoplastics



Our PPSU (Polyphenylsulfone)

is a high-performance, amorphous thermoplastic known for its excellent thermal stability, toughness, and resistance to repeated steam sterilization. It is widely used in medical, aerospace, and plumbing applications.

Characteristics:

- High heat resistance
- Excellent Hydrolysis Resistance
- Superior Impact Strength
- Chemical Resistance
- Biocompatibility
- Dimensional Stability

PPSU Variants

PPSU (General Grade)

is a tough, amorphous thermoplastic with excellent heat and hydrolysis resistance. It is a preferred material for applications requiring repeated sterilization and resistance to aggressive chemicals.

Application for PPSU:

- Plumbing
- Aerospace
- Food and beverages
- Membrane Housing & Water Filtration

PPSU (Medical Grade)

is a high-performance plastic specifically formulated for demanding medical and healthcare applications. It offers excellent sterilization resistance, mechanical strength, and biocompatibility. It's a polyphenolsulfone (PPSU) product offering a balance of properties including chemical resistance, impact strength, and thermal stability.

Application for PPSU:

- Surgical and dental
- Sterilization trays
- Endoscopic componets
- Orthopedic implants

Material Reference Values – Thermoplastics

Einheit	Norm	COMCO-PREMIUM 1000/ PE-UHMW	COMCO-CLASSIC 1000/ PE-UHMW-R	COMCO-PREMIUM 500/ PE-HMW	COMCO-PREMIUM 300/ PE-HD	COMCO-PREMIUM SLIDE/ PE-UHMW Slide-modified	COMCO-PREMIUM PP/PP-H (homopol.)	Einheit	Norm	COMCO-PAX6/PA 6	COMCO-PAX6/PA 6 Mo Rußzusatz	COMCO-PAX6 GF 30/ PA 6 GF 30% Glasfaserverstärkt	COMCO-PAC6/PA 6 G	COMCO-PAC 6/PA 6 G Mo Rußzusatz	COMCO-PAC6 OL/PA 6 G Inkorporierter Flüssigschmierstoff-Zusatz	COMCO-POWERGLIDE/PA 6 G Inkorporierter Festschmierstoff-Zusatz	COMCO-PAX66/PA 6.6
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Allgemeine Eigenschaften

Allgemeine Eigenschaften			PE						PP	PA								
Standardfarbe			natur schwarz green	schwarz green	natur rot blau gelb green schwarz	natur schwarz	anthrazit	grau natur			natur	schwarz	schwarz	natur	schwarz	gelb schwarz green	green	natur
Dichte	g/cm³	DIN EN ISO 1183	0,93	0,94	0,96	0,96	0,96	0,92	g/cm³	DIN EN ISO 1183-1	1,14	1,14	1,35	1,15	1,15	1,14	1,14	1,15
Feuchtigkeitsaufnahme	%	DIN EN ISO 62	< 0,01	< 0,01	< 0,01	< 0,01	< 0,01	< 0,01	%	DIN EN ISO 62	3	3	2	2,5	2,5	2	2	2,8
Brennverhalten		UL94	HB	HB	HB	HB	HB	HB		UL94 3 / 6 mm	HB/HB	HB/HB	HB/V2	HB/HB	HB/HB	HB/HB	HB/HB	HB/V2
Gleitreibung			●	◐	●	●	●	◐			◐	◐	-	◐	◐	◐	●	◐
Gleitverschleiß	Sand Slurry		●	◐	◐	◐	●				◐	◐	-	◐	◐	◐	●	◐

Mechanische Eigenschaften

Streckspannung	N/mm²	DIN EN ISO 527-1	20	22	27	22	21	32	MPa	DIN EN ISO 527	80	80	180	75	82	70	75	85
Reißdehnung	%	DIN EN ISO 527-1	>200	>200	>50	>50	>200	>50	%	DIN EN ISO 527	50	50	3	45	35	50	35	50
E-Modul (Zug)	N/mm²	DIN EN ISO 527-1	680	700	1200	800	850	1300	MPa	DIN EN ISO 527	3200	3200	9500	3400	3500	3300	3400	3300
Kerbschlagzähigkeit	mJ/mm²	DIN EN ISO 179-2	mit 15° Spitzkerbe >130	mit 15° Spitzkerbe >100	mit 15° Spitzkerbe >20	12	mit 15° Spitzkerbe >150	4	KJ/m² (Charpy)	DIN EN ISO 179	3	3	-	3	2,5	4	3,5	3
Kugeldruckhärte	N/mm²	DIN EN ISO 2039-1	38	-	46	40	-	65	MPa	DIN EN ISO 2039-1	170	170	220	180	185	165	170	180
Shore-Härte	Skala „D“	DIN EN ISO 868	63	65	65	63	64	72	Skala „D“	DIN EN ISO 868	82	82	84	83	83	82	81	83

Thermische Eigenschaften

Kristallitschmelzbereich	°C	DIN EN ISO 3146	135	135	135	135	135	166	°C	ISO 11357-3	220	220	220	216	216	213	215	260
Wärmeleitfähigkeit	W/(m×K)	ISO 8302	0,4	0,4	0,4	0,4	0,4	0,2	W/(m×K)	DIN 52612-1	0,23	0,23	0,28	0,25	0,25	0,25	0,25	0,23
Spezifische Wärmekapazität	J/(kg×K)	DIN 51005	1,9	1,9	1,9	1,9	1,9	1,7	kJ/(kg×K)	DIN 52612	1,7	1,7	1,5	1,7	1,7	1,7	1,7	1,7
Thermischer Ausdehnungskoeffizient	10⁻⁴K⁻¹	DIN 53752	150 bis 230	150 bis 230	150 bis 230	150 bis 230	150 bis 230	120 bis 190	10⁻⁴K⁻¹	DIN 53752	90	90	60	80	80	80	80	80
Anwendungstemperatur (langfristig)	°C	Richtwert	-250 bis +80	-150 bis +80	-100 bis +80	-50 bis +80	-250 bis +80	0 bis +100	°C	Richt-Wert	-40 bis +85	-40 bis +85	-30 bis +120	-40 bis +110	-40 bis +110	-40 bis +110	-40 bis +110	-30 bis +95
Anwendungstemperatur (kurzfristig max.)	°C	Richtwert	bis +130	bis +130	bis +100	bis +100	bis +130	bis +150	°C	Richt-Wert	bis +160	bis +160	bis +180	bis +170	bis +170	bis +160	bis +160	bis +160
Wärmeformbeständigkeit	°C	DIN EN ISO 306 Vicat B	79	79	79	67	79	90	°C	DIN EN ISO 75/ Verl.A	75	75	210	95	95	90	90	100

Elektrische Eigenschaften

Dielektrizitätszahl (50 Hz)		DIN VDE 0303-4	2,3	2,3	2,3	2,4	2,3	2,4		DIN IEC 60250	3,9	-	-	3,7	-	3,7	3,7	3,8
Dielektrischer Verlustfaktor		DIN VDE 0303-4	1×10⁻⁴	1×10⁻⁴	2×10⁻⁴	6×10⁻⁴	1×10⁻⁴	1,9×10⁻⁴		DIN IEC 60250	0,02	-	-	0,02	-	0,02	0,02	0,00
Spezifischer Durchgangswiderstand	Ω cm	DIN VDE 0303-3	>10¹⁴	>10¹⁴	>10¹⁴	>10¹⁴	>10¹⁴	>10¹⁴	Ω cm	DIN IEC 60250	10¹⁵	-	-	10¹⁵	-	10¹⁵	10¹⁵	10¹⁵
Oberflächenwiderstand	Ω	DIN VDE 0303-3	>10¹⁴	>10¹²	>10¹⁴	>10¹⁴	>10¹²	>10¹⁴	Ω	DIN IEC 60093	10¹³	-	-	10¹⁴	-	10¹³	10¹³	10¹³
Vergleichszahl der Kriechwegbindung		IEC 60112	CTI 600	CTI 600	CTI 600	CTI 600	CTI 600	CTI 600		IEC EN 60112	CTI 600	-	-	CTI 600	-	CTI 600	CTI 600	CTI 600
Durchschlagfestigkeit	KV/mm	IEC 60243	45	45	45	45	45	45	kV/mm	DIN EN 60243	20	-	-	20	-	18	18	25

Finished Parts and Semi-Finished Products

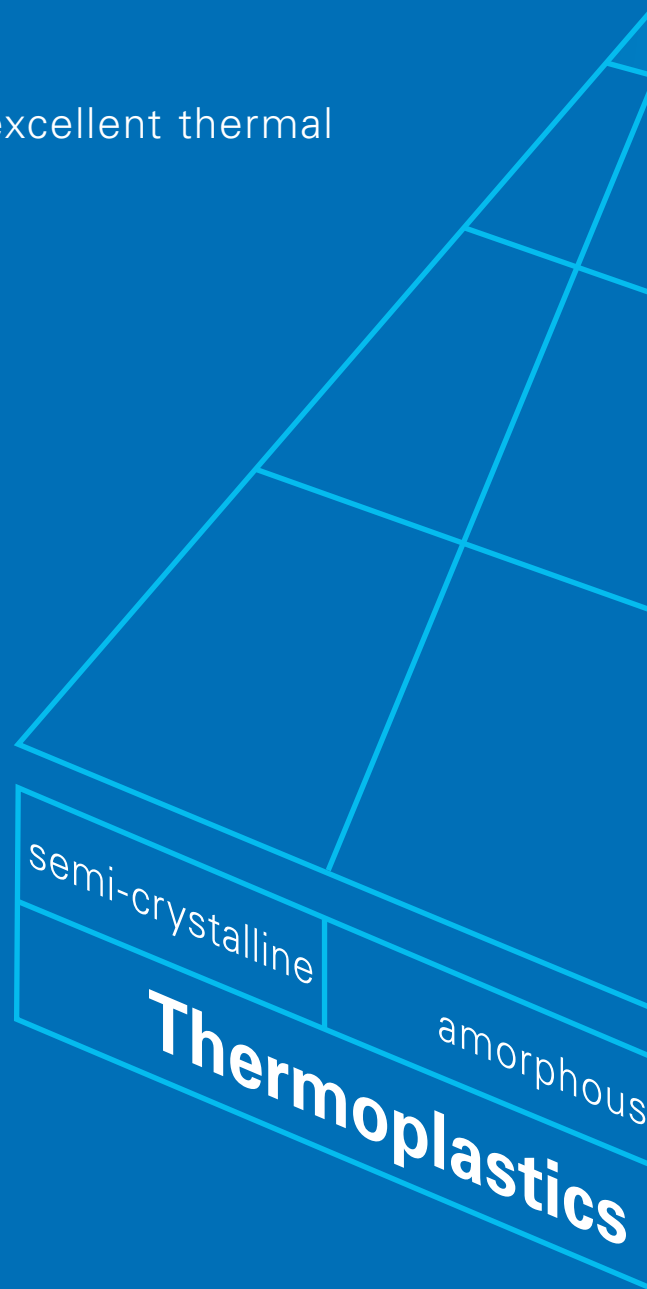
COMCO-PAK 66/PA 6.6 Rußzusatz																								COMCO-PAK 66 GF 30/ PA 6.6 GF 30% Glasfaserverstärkt						COMCO-PAK 12/PA 12						COMCO-PAK 12/PA 12 Rußzusatz						COMCO-PAK 12 GF 30/PA 12 Glasfaser verstärkt						COMCO-PAK 46/PA 4.6						COMCO-POM C/POM C						COMCO-POM C ESD EC/ POM C conductive						COMCO-POM C ESD AST/ POM C Antistatic						COMCO-POM C SLIDE/ POM C Slide-modified						COMCO-POM C GF 25/ POM C GF Glasfaserverstärkt						COMCO-POM H/POM H						COMCO-PET/PET						COMCO-PET SLIDE/PET Slide-modified						COMCO-PEEK/PEEK						COMCO-PVDF/PVDF						COMCO-PMMA						COMCO-PC						COMCO-PVC						COMCO-TF Fein						COMCO-PUR																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
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Our trademark COMCO stands for high-quality thermoset premium materials.

The material pyramid classifies our thermoset materials according to their thermal resistance.

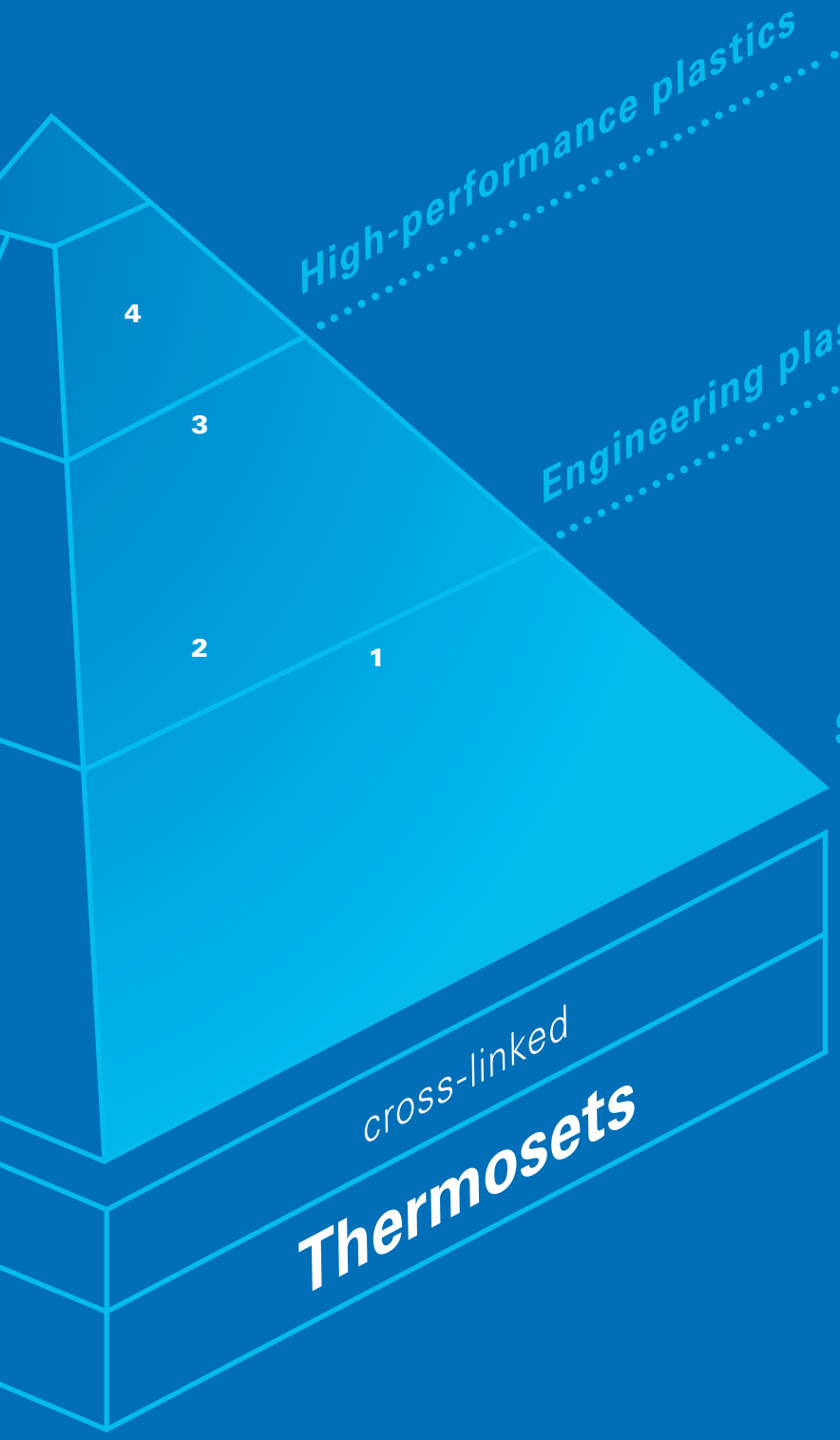
Our thermoset materials based on hard paper, hard fabric, and glass fabric are high-performance plastics widely used in industries such as electrical engineering, mechanical engineering, transportation technology, and transformer construction.

This product family is characterized by excellent thermal and electrical properties.



MATERIAL PYRAMID **LEGENDE**

- 1 MELAMINE (MF)
- 2 PHENOLIC (PF)
- 3 EPOXY (EP)
- 4 SILICONE (SI)



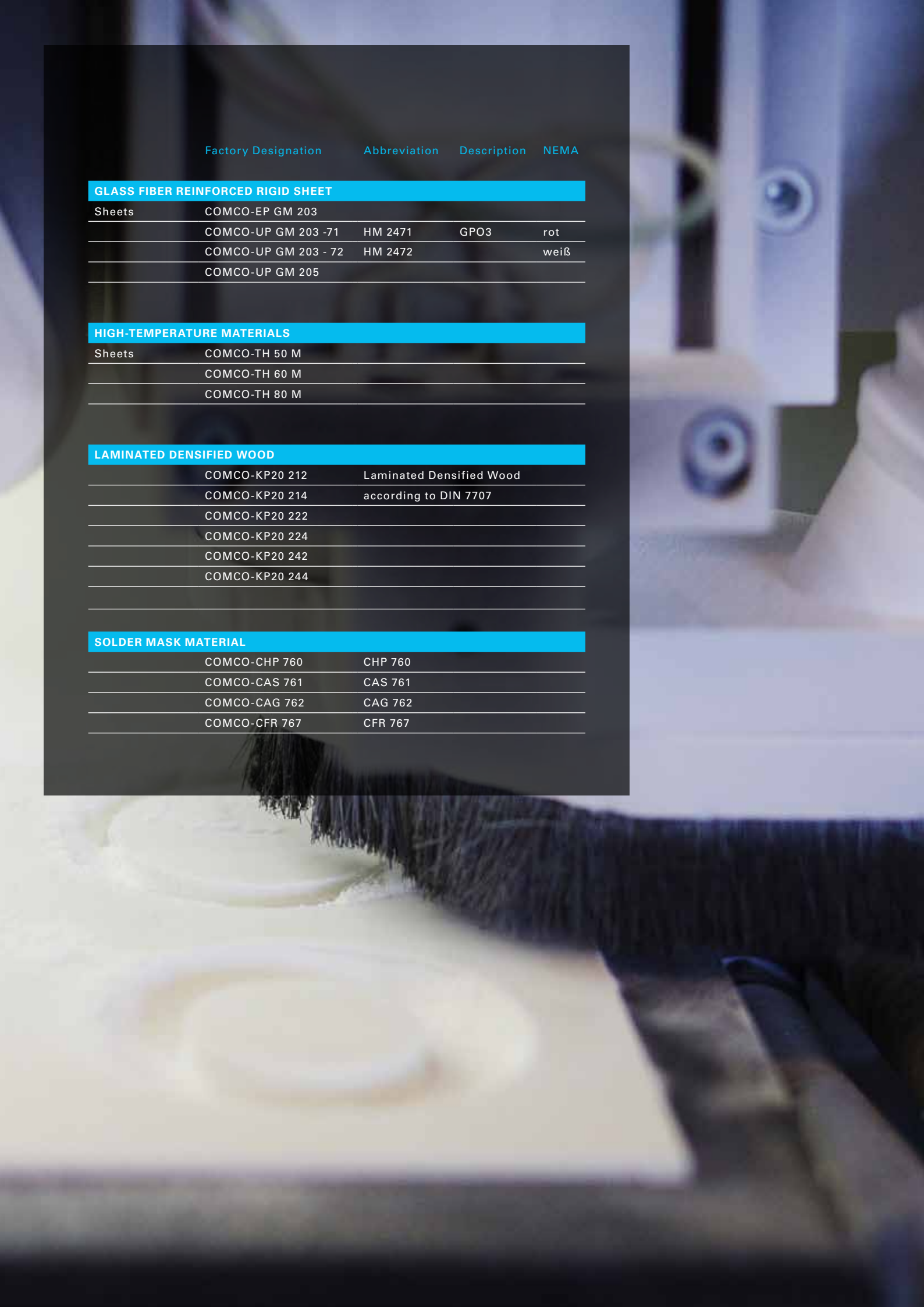
Permanent temperature

Operating temperature: 100 - 300 °C

Our Thermoset materials

	Factory Designation	Abbreviation	Description	NEMA
HARD PAPER				
Sheets	COMCO-PF CP 201	HP 2061		
	COMCO-PF CP 202	HP 2061.5		
	COMCO-PF CP 203	HP 2061.6		
	COMCO-PF CP 204	HP 2063		
	COMCO-PF CP 205	HP 2062.9		
	COMCO-PF CP 206	HP 2062.8		
Round Pipes	COMCO-PF CP 21	HP 2065		
	COMCO-PF CP 22	HP 2066		
	COMCO-PF CP 23	HP 2067		
Round Bars	COMCO-PF CP 41	HP 2068		
COTTON FABRIC LAMINATE				
Sheets	COMCO-PF CC 201	HGW 2082		
	COMCO-PF CC 202	HGW 2082.5		
	COMCO-PF CC 203	HGW 2083		
	COMCO-PF CC 204	HGW 2083.5		
	COMCO-MF CC 201	HGW 2282.5		
Round Pipes	COMCO-PF CC 21	HGW 2086		
	COMCO-PF CC 22	HGW 2085		
Round Bars	COMCO-PF CC 42	HGW 2088		
GLASS FABRIC LAMINATE				
Sheets	COMCO-EP GC 201	HGW 2372	G10	
	COMCO-EP GC 202	HGW 2372.1	FR4	
	COMCO-EP GC 203	HGW 2372.4	G11	
	COMCO-EP GC 204	HGW 2372.2	FR5	
	COMCO-EP GC 205	HGW 2370.4		
	COMCO-EP GC 306			
	COMCO-EP GC 308			
	COMCO-MF GC 201	HGW 2275	G5	
	COMCO-SI GC 202	HGW 2572	G7	
Round Pipes	COMCO-EP GC 21	HGW 2375		
	COMCO-EP GC 22	HGW 2375.4		
	COMCO-SI GC 21	HGW 2575		

You can find more materials at www.comco-epp.com



Factory Designation	Abbreviation	Description	NEMA
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GLASS FIBER REINFORCED RIGID SHEET

Sheets	COMCO-EP GM 203			
	COMCO-UP GM 203 -71	HM 2471	GPO3	rot
	COMCO-UP GM 203 - 72	HM 2472		weiß
	COMCO-UP GM 205			

HIGH-TEMPERATURE MATERIALS

Sheets	COMCO-TH 50 M			
	COMCO-TH 60 M			
	COMCO-TH 80 M			

LAMINATED DENSIFIED WOOD

	COMCO-KP20 212	Laminated Densified Wood		
	COMCO-KP20 214	according to DIN 7707		
	COMCO-KP20 222			
	COMCO-KP20 224			
	COMCO-KP20 242			
	COMCO-KP20 244			

SOLDER MASK MATERIAL

	COMCO-CHP 760	CHP 760		
	COMCO-CAS 761	CAS 761		
	COMCO-CAG 762	CAG 762		
	COMCO-CFR 767	CFR 767		

COMCO Hard Paper

Thermosets

Made from paper as the carrier material and phenol/formaldehyde resin as the binder, this material is excellently suited as an electrical insulating material in mechanical and electrical applications.



COMCO Hard Paper can be supplied in the following material types:

Factory designation	Abbreviation
---------------------	--------------

COMCO-PF CP 201	HP 2061
COMCO-PF CP 202	HP 2061.5
COMCO-PF CP 203	HP 2061.6
COMCO-PF CP 204	HP 2063
COMCO-PF CP 205	HP 2062.9
COMCO-PF CP 206	HP 2062.8



Standard color:

brown

Application examples:

wipers, circuit board holders, base plates, insulating discs

COMCO Cotton Fabric Laminate

Thermosets

Thermoset laminated material made from cotton fabric sheets as the carrier material and phenol/formaldehyde resin as the binder. This high-quality material is well suited for a wide range of applications in mechanical engineering due to its good mechanical properties such as high wear resistance and excellent noise and vibration damping.



COMCO cotton fabric laminate can be supplied in the following material types:

Factory designation	Abbreviation
---------------------	--------------

COMCO-PF CC 201	HGW 2082
COMCO-PF CC 202	HGW 2082.5
COMCO-PF CC 203	HGW 2083
COMCO-PF CC 204	HGW 2083.5
COMCO-MF CC 201	HGW 2282.5



Standard color:

brown

Application examples:

sliding bushings, gears, sealing rings, insulating rails

COMCO Glass Fabric Laminate

Thermosets

Thermoset material made from glass fabric, glass roving fabric, or glass mats as the carrier material and polyester, epoxy, melamine, or silicone resins as the binder. This material group is characterized by high mechanical strength and excellent electrical insulating properties. These materials are used in many fields such as switchgear construction, transportation technology, vehicle manufacturing, plant engineering, and medical technology.

COMCO glass fabric laminate can be supplied in the following material types:

Factory designation Abbreviation

Glass Fabric Laminate

COMCO-EP GC 201	HGW 2372
COMCO-EP GC 202	HGW 2372.1
COMCO-EP GC 203	HGW 2372.4
COMCO-EP GC 205	HGW 2370.4
COMCO-UP GM 201	HM 2471
COMCO-UP GM 203-71	HM 2471 rot
COMCO-UP GM 203-72	HM 2472 weiß
COMCO-UP GM 205	UP GM 205
COMCO-GC 201	HGW 2272
COMCO-SI GC 202	HGW 2572

Standard colors:

white, green, red, beige

Application examples:

rail holders, insulating strips, bushings, cable covers



If you have not found the material you need, please do not hesitate to contact us:

Phone: **+43 (0) 6245 70 000** Email: **info@comco-epp.com**

COMCO Laminated Densified Wood

Thermosets

Laminated densified wood is a thermoset material made from red beech veneer as the carrier material and a hardenable synthetic resin as the binder. This material is characterized by high mechanical strength with low specific weight and good electrical properties.

COMCO laminated densified wood can be supplied in the following material types:

Factory designation	Abbreviation
---------------------	--------------

Laminated Densified Wood

COMCO-KP20 212	Laminated Densified Wood
COMCO-KP20 214	according to DIN 7707
COMCO-KP20 222	
COMCO-KP20 224	
COMCO-KP20 242	
COMCO-KP20 244	

Application examples:
fastening elements, insulating parts, pressure rings, leaf springs



COMCO Solder Mask Material

Thermosets

This material has been specially developed for the production of printed circuit boards. Characteristics such as good mechanical stability at elevated temperatures, low thermal conductivity, chemical resistance, and good machinability distinguish this group of materials.

COMCO solder mask material can be supplied in the following material types:

Factory designation	Abbreviation
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COMCO-CHP 760	CHP 760
COMCO-CAS 761	CAS 761
COMCO-CAG 762	CAG 762
COMCO-CFR 767	CFR 767



Application examples:
Solder masks for the manufacturing of printed circuit boards

Material Reference Values – Thermosets

[illegible]

COMCO-EP CC 204 / HGW 2083.5 Phenolharz-Baum- woll-Feinstgewebe	COMCO-MF CC 201 / HGW 2282.5 Melaminharz-Baumwoll-Gewebe	Glasgewebe					COMCO-EP GC 201 / HGW 2372 Epoxidharz-Glasfilament-Gewebe	COMCO-EP GC 202 / HGW 2372.1 Epoxidharz-Glasfilament-Gewebe	COMCO-EP GC 203 / HGW 2372.4 Epoxidharz-Glasfilament-Gewebe	COMCO-MF GC 201 / HGW 2275 Melaminharz-Glasfilament-Gewebe	COMCO-SI GC 202 / HGW 2572 Silikonharz-Glasfilament-Gewebe	COMCO-EP GC 206 / HGW 2370.4 Epoxidharz-Glasfilament-Fovinggewebe	COMCO-UP GM 201 / HGW 2471 Polyesterharz-Glasfilament-Matte	COMCO-UP GM 203-71/ HGW 2471 Polyesterharz-Glasfilament-Matte	COMCO-UP GM 203-72/ HGW 2472 Polyesterharz-Glasfilament-Matte	COMCO-UP GM 205/ UP GM 205 Polyesterharz-Glasfilament-Matte
		braun	weiß	green -braun	green -braun	green -braun	weiß	weiß	weiß	green -braun	weiß	green -braun	weiß	rot	weiß	weiß
1,3–1,4	1,4–1,5			1,7–1,9	1,7–1,9	1,7–1,9	1,8–2,0	1,7–1,8				1,8–1,9	>1,80	>1,80	>1,9	1,85
120	170			28	28	28	310	45				28	61	60	60	25
130	90			350	350	350	270	125				350	125	125	200	350
30	6			100	100	100	50	40				100	80	80	187	180
11 15	3 4			50 -	50 -	50 -	30 -	25 -				70 -	75 -	40 -	150 -	150 -
80	60			220	220	220	120	90				220	60	60	124	200
150	200			200	200	150	180	50				180	180	140	188	250
-	90			350	350	350	275	160				350	200	200	200	250
2500	2500			3000	3000	3000	1800	1000				3000	2000	2130	2290	3600
7000	5000			18000	18000	18000	14000	13000				16000	9000	9000	10570	20000
0,2	0,2			0,3	0,3	0,3	0,3	0,3				0,3	0,67	0,82	0,63	
20–40	20–40			10–20	10–20	10–20	20–40	10–20				10–20	27	20–30	17	10–20
110	95			130	120	155	130	180				155	130	155	155	155
65	45			175	175	175	135	65				175	-	-	-	175
-	V0			-	V0	-	V0	-				-	-	V0	V0	V0
-	-			-	-	-	-	-				-	-	-	-	-
A	Y			B	E	F	B	H				F*	B	F	F	F
2b	2a			2a	2a	2a	2a	2a				2a	2a	2a	2a	2a
10 ⁷	10 ⁷			5×10 ¹⁰	5×10 ¹⁰	5×10 ¹⁰	10 ⁷	10 ⁸				10 ¹⁰	0,65× 10 ¹²	10 ⁸	7,1×10 ⁸	10 ¹⁰
25	20			40	40	40	20	25				40	45	42	40	3kV/mm
5	10			40	40	40	25	20				40	20	34	34	12kV/mm
- -	- -			0,05 0,04	0,05 0,04	0,05 0,04	- -	0,05 0,07				0,05 0,04	0,0097 0,0225	0,0102 0,0153	0,0092 0,0372	- -
5	6			5	5	5	7	5				5	5	5,18	5	5
100	560			200	200	180	600	440				180	500	600	600	600
-	A/B 1,8			AN 1,4	AN 1,4	AN 1,4	A/B 2	AN 1,4				AN 1,4	A/B 1,4	A/B 1,4	A/B 1,4	
-	-			-	-	-	-	-				-	L1	L1	180 sek.	180 sek.

Bei den obigen Richtwerten handelt es sich um Angaben des Herstellers, für welche COMCO EPP GmbH keinerlei Gewähr oder Haftung übernimmt. Die Werte sind beeinflussbar durch die Konstruktion, die Verarbeitungsbedingungen und die Umgebungseinflüsse. Die Beurteilung, ob ein Werkstoff für einen konkreten Einsatzzweck geeignet ist, obliegt allein dem Anwender.

Certified according to ISO 9001:2015

Quality is important to us.
That's why our company is ISO 9001:2015 certified.

This is a translation of the certificate AT18/2444

The management system of

Comco EPP GmbH

Neualmerstraße 33, 5400 Hallein, Austria

has been assessed and certified as meeting the requirements of

ISO 9001:2015

For the following activities

Machining and sales of engineered plastics

This certificate is valid from 21 April 2024 until 20 April 2027 and remains valid subject to satisfactory surveillance audits.

Issue 2. Certified since 11 May 2021



Authorised by
Daniel Willemin

Authorised by
Jan Meemken

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Highest quality at the best price

Comco Premium impact protection strips
and wall protection profiles
made to your specifications.



We offer you a wide range of impact protection strips for retail construction, gastronomy, the food industry, and refrigeration or air conditioning technology. Our impact protection strips made from MK-Premium 500, PE 500, PE-HMW, and MK-Premium 300, PE 300, PE-HD protect walls, shelves, counters, and other surfaces from damage. The material is characterized by extreme impact resistance, high cut resistance, almost no internal stress, physiological safety, no water absorption, and easy cleaning.

Product Range

Lengths:

1000 mm to 6000 mm

Standard: 2000 mm, 3000 mm

Widths:

100 mm to 600 mm

Standard: 100 mm, 150 mm, 200 mm, 300 mm

Thicknesses:

10 mm, 12 mm, 15 mm, 20 mm, 25 mm, 30 mm, 40 mm

Color:

Natural

Similar to RAL:

Yellow – RAL 1003, RAL 1018

Blue – RAL 5005, RAL 5017

Green – RAL 6024

Red – RAL 3020

Red brown – RAL 3009

Black – RAL 9005

Gray – RAL 7037, RAL 7004

We are also happy to supply versions with all-around milled or planed surfaces, chamfered or beveled edges, countersunk or standard holes: please send us your sketch!

Our commitment is: highest quality at the best price in the shortest time. We deliver exactly the standard you need as a professional. Send us your inquiry or order!

POLYIMIDE

Product Informationen



POLYIMIDE – Super Engineering Plastic

Polyimide is a high-performance polymer known for its exceptional thermal stability, chemical resistance, and mechanical strength. It maintains its physical integrity across a wide temperature range (typically from -269°C to +400°C), making it ideal for demanding industrial, aerospace, and electronics applications.

Polyimide films and resins are lightweight, flame-retardant, and electrically insulating, making them suitable for use in flexible printed circuits, insulation layers, high-temperature adhesives, and various automotive components.

Areas of application for POLYIMIDE:

- Electronics and Electrical Engineering
- Aerospace and Aviation engineering
- Automotive
- Medical Devices
- Machinery and heavy machinery industries
- Optoelectronics and photonics

Characteristics:

- Heat resistant
- Robust
- Resistant to wear
- Stable friction level
- Perfect insulation
- Good processability

POLYIMIDE

Product Informationen

POLYIMIDE – variants

Polyimide N Polyimide natural (color dark brownish)

Unfilled base grade with highest purity, excellent electrical insulation, and outstanding chemical resistance.

Compositions:

- (equivalent: Plavis-N, Vespel SP-1, Meldin 4001)
-

Polyimide G15

15% graphite-filled, self-lubricating, with very good wear and friction properties.

Compositions:

- (equivalent: Plavis-G15, Vespel SP-21, Meldin 5021)
-

Polyimide G40

40% graphite-filled for maximum dimensional stability and ultra-low thermal expansion.

Compositions:

- (equivalent: Plavis-G40, Vespel SP-22)
-

Polyimide MoS

15% molybdenum disulfide (MoS_2), dry-running, suitable for vacuum or dry environments.

Compositions:

- (equivalent: Plavis-MS, Vespel SP-3, Meldin 5310)
-

Polyimide ESD

Electrostatic dissipative grade with controlled surface resistivity, ideal for electronics applications.

Compositions:

- (equivalent: Plavis-ESD, Meldin 7001-ESD)



POLYIMID – Super-Engineering-Kunststoff

Expertise in Plastics

High Performance in Plastics

Finished Parts

COMCO EPP specializes in the machining production of individual, custom-made finished parts according to customer drawings from all types of technical plastics.

Our core competence lies in expert consulting for design and material selection.



Semi-finished products

We supply round and flat rods as well as plates made from all types of technical and high-performance plastics. Cut-to-size round rods and plates are delivered accurately and promptly.



COMCOEPP

Engineering Plastic Products

We produce plastic stock shapes
and engineer tailor made solutions.



Version 2.0 / 2025

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