



**PRODUCT
OVERVIEW**

FOUNDING

In 1990, ISO-TECH was founded with initially four employees. We quickly established ourselves as a polyethylene specialist in the market.

1990

PLANTS

With the opening of a second plant in 2010, we have expanded our range of products to include technical and high-performance plastics as well as new milling possibilities.

2

EMPLOYEES

We have continuously invested in the expansion of production width and vertical integration and we thereby provided new skilled jobs.

200

MATERIALS

With around 100 different materials, we cover the most diverse requirements and the demand of our customers.

100

PERCENT EXPORT

For many years, we have generated around half of our sales abroad.

50



ISO-TECH KUNSTSTOFF GmbH

Engineering plastics have been our profession for around 30 years. With our experience and know-how, ISO-TECH is one of the leading manufacturers of high-grade thermoplastic products. The owner-operated company relies on a wide range of production. With success: our products can be found in almost all industry sectors. At ISO-TECH, we stand for quality, sustainability and partnership. A philosophy that our customers appreciate at home and abroad – and every day a new challenge for our growing company.



Further information on: www.iso-tech.net/en/about-us

MATERIALS

Sheet materials and finished parts by ISO-TECH are made of different materials depending on requirements and intended use. We manufacture our sheet materials as well as our polyethylene finished parts on the basis of **HIGH-MOLECULAR** or **ULTRA-HIGH-MOLECULAR ISO-LEN®**.

In addition to virgin and regenerated polyethylene, we also process increasingly popular **HIGH-PERFORMANCE PLASTICS** such as **PTFE** or **PEEK**. We attach particular importance to the careful selection of raw materials and of our suppliers in order to meet our own and the high quality requirements of our customers.

Materials	Material code	Materials	Material code
ISO-LEN® 1000 virgin	PE-UHMW	ISO-LEN® Polyrubber	PE-HMW + TPE
ISO-MOL®	PE-UHMW	ISO-LEN® 500 Confetti	PE-HMW
ISO-LEN® 1000 AST	PE-UHMW	ISO-MID PA 6	PA 6
ISO-LEN® 1000 electrically conductive	PE-UHMW	ISO-MID PA 6 + Oil	PA 6 + Oil
ISO-LEN® HOT	PE-UHMW	ISO-MID PA 6.6	PA 6.6
ISO-LEN® P	PE-UHMW	ISO-MID PA 12	PA 12
ISO-LEN® 1000 reg	PE-UHMW	ISO-POM	POM
ISO-LEN® 1000 reg fine-grinded black	PE-UHMW	ISO-PP	PP
ISO-LEN® WBS	PE-UHMW	ISO-PVC	PVC
ISO-LEN® LTS	PE-UHMW	ISO-PET	PET
ISO-LEN® 500 virgin	PE-HMW	ISO-PTFE	PTFE
ISO-LEN® 500 reg	PE-HMW	ISO-PEEK	PEEK

Depending on the application, you can choose from a variety of different materials in virgin or regenerated quality, each with certain characteristics.

Additional materials as well as variants of the materials – for example in combination with glass fibers, carbon fibers or as a UV-stabilized version – are available upon request. We also offer many materials in a **FOOD-GRADE VERSION (EU 10/2011 | FDA)**.

SHEETS & CUT-TO-SIZE

We produce **POLYETHYLENE SHEETS** of different sizes made of different materials in the sintering process in our own factory. In addition to our standardized sheet formats, you can also order sheet materials as a **CUT-TO-SIZE WITH INDIVIDUAL DIMENSIONS**.

PRESS FORMATS

Thicknesses from 6 to 200 mm

ca. 4.100 x 2.000 mm
ca. 5.200 x 2.000 mm
ca. 6.100 x 2.040 mm
ca. 6.100 x 2.500 mm

STANDARD COLOURS

Virgin quality

- Natural
- Black
- Green
- Red brown
- Flame red
- Sky blue
- Royal blue
- Traffic yellow
- Dusty grey

Regenerated quality

- Black
- Green
- Red brown
- Confetti
- Fine-grinded black



In addition to our standard colours, we also offer a wide range of special colours on request.

SHEET FORMATS, STANDARD

Planed and sawn, press-finished

ca. 2.000 x 1.000 mm
ca. 2.000 x 1.250 mm
ca. 2.500 x 1.000 mm
ca. 2.600 x 1.000 mm
ca. 2.600 x 2.000 mm (press-finished)
ca. 3.000 x 1.000 mm
ca. 3.000 x 1.250 mm
ca. 3.000 x 2.000 mm (press-finished)
ca. 4.000 x 1.000 mm
ca. 4.000 x 2.000 mm (press-finished)
ca. 5.000 x 1.000 mm
ca. 5.000 x 2.000 mm (press-finished)
ca. 6.000 x 1.000 mm
ca. 6.000 x 2.000 mm (press-finished)
ca. 6.000 x 2.500 mm (press-finished)



Further information on: www.iso-tech.net/en/products

PRODUCTION

At ISO-TECH, you will receive **PLASTIC MILLING AND TURNING PARTS** made of different materials, which we produce for you according to your individual needs and specific application. Our machinery for the production of highly complex technical finished parts is one of the most modern in the industry. In addition, we use the possibilities of automation in the form of robot arms for feeding machines as well as in the form of closed automation centers.

At the same time, we rely on conventional machines to complete our machinery, whenever this makes economic sense. In order to meet the high demands of our customers in terms of efficiency and flexibility, we produce in a three-shift system both in the sheet materials department and in the machining department. In addition, we have extensively digitized all departments. Increasingly important to us is the construction of entire assemblies ordered by our customers.

Sinterpressing

- Various sinter presses
- Working area up to 6,100 mm x 2,500 mm
- Up to 200 mm thickness



Sawing

- 2 cutting saws with automatically deliverable 90 ° swivel table
- Working area up to 6,500 mm x 6,500 mm



Planing

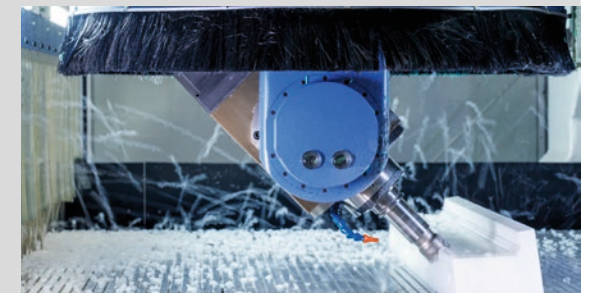
- 3 planers
- Working area up to 1,340 mm wide
- Minimum planing thickness 2.0 mm



MACHINING

Milling

- Various three-axis CNC milling machines
Working area up to 6,100 x 1,400 x 600 mm
- Various four-axis CNC milling machines
Working area up to 2,600 x 900 x 700 mm
- Various five-axis CNC milling machines
Working area up to 6,000 x 2,250 x 390 mm B ± 105 °, C ± 365 °



Lath turning

- Various lathes with driven tools
Max. bar passage 102 mm
Max. diameter 450 mm
Max. center distance 1,200 mm
- Various lathes without driven tools
Max. bar passage 35 mm
Max. diameter 280 mm
Max. center distance 600 mm



Drilling

- Various CNC drilling centers
- Working area up to 6,000 x 400 x 700 mm



Profiling

- Various automatic profile machines with up to 13 sequential milling units
- Working area up to 6,100 x 230 x 140 mm



Gear cutting

- Gear cutting machine with
Max. passage 900 mm
Up to 400 teeth
Module 1 – 10



Further information on: www.iso-tech.net/en/products

FINISHED PARTS

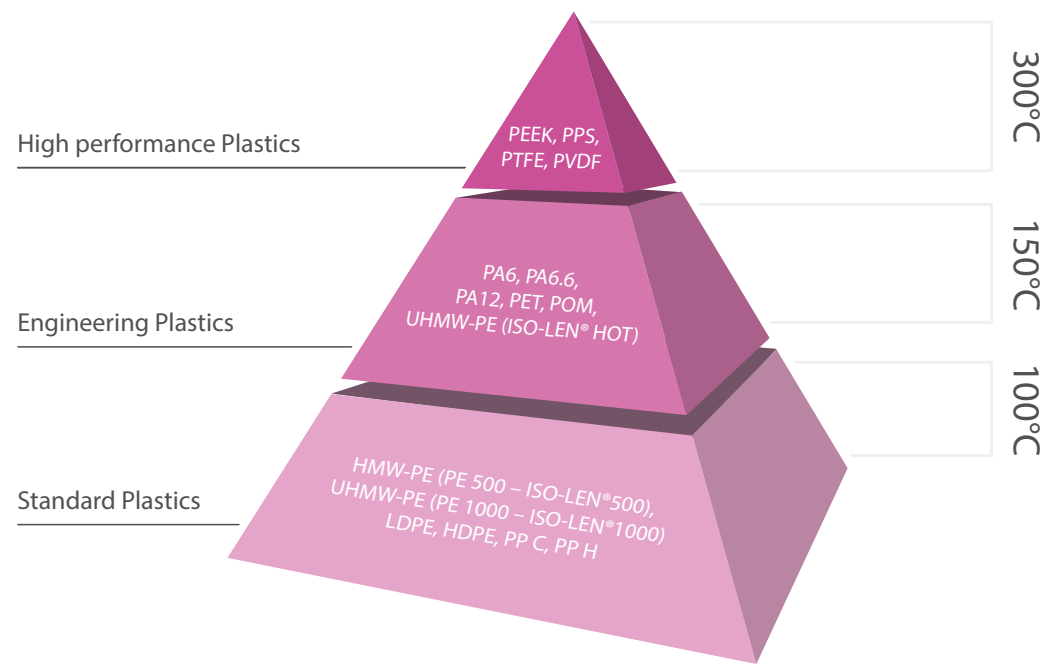
Finished parts from ISO-TECH can be found today in almost **ALL INDUSTRIAL AREAS**. Depending on the industry and individual needs, we manufacture the most diverse thermoplastic finished parts for our customers – custom-fit and with the right degree of precision.

Mechanical- and plant engineering	• Track rollers and rope guide rollers • Abrasion protection strips & sliding strips • Wear strips and scrapers • Bushings • Rings & sleeves
Packaging and conveyor technology	• Conveyor stars • Guide and deflection rollers • Abrasion protection strips and sliding strips • Slip tables • Gears • Carriers
Food industry	• Cutting table supports and carving plates • Bumper guards in cold storages • Cam guides • Chopping blocks & counter boards • Conveyor belt profiles
Electrical industry	• Plug-in couplings and brackets • Rail connectors • Spacers
Vehicle construction	• Gliders • Sealing profiles • Gear racks for load carriers • Workpiece carriers
Port and hydraulic engineering	• Fenders • Sliding elements • Sealing beams for locks • Bumpers
Paper industry	• Suction coverings and suction pads • Foils • Deflector strips & scraper strips
Chemical industry	• Scrapers • Filter plates and frames for filter presses • Rollers & plain bearings
... and more	



Further information on: www.iso-tech.net/en/products

CHARACTERISTICS



ISO-LEN® SPECIAL MATERIALS

The materials from the ISO-LEN® family, with a production volume of more than **6,000 tons p.a.**, are based on the materials PE-UHMW (PE 1000) and PE-HMW (PE 500). In addition to a variety of known material types, we conduct research in the **COMPANY’S OWN LABORATORY** on various developments.

Selection of our special ISO-LEN®-materials:

	ISO-LEN® HOT	ISO-LEN® P	ISO-LEN® POLYRUBBER
Specials	• High-Operating-Temperature • Higher application temperature short term: ca. 110 °C constantly: ca. 100 °C	• Better wear resistance with abrasive media • Optimized torsion stiffness	• ISO-LEN®/TPE-Composite
Characteristics	• Extremely good wear resistance • Very good slide properties • Excellent shock and impact resistance	• Reinforced by microglass balls • Much better torsional strength • Much better wear resistance with abra-sive media and high machine speeds	• PE-HMW with 4mm TPE-layer • Basic material PE allows attachment to steel or base beams • Product-contacting carrier material TPE enables the storage and transport of painted or sensitive, finished-treated components

All special materials of the ISO-LEN® family are obtained in the form of semi-finished products, i.e. sheets, cuts and twisted round rods, as well as, of course, a finished part according to drawing or pattern.

Legal Notice
All information contained in this product overview has been researched to the best of our knowledge. Nevertheless, mistakes cannot be completely ruled out. The information contained in this product overview is therefore not associated with any obligation or guarantee of any kind. Assumption of responsibility or consequential liability for damages resulting from the use of this information is therefore excluded.

	ISO-LEN® 1000	ISO-MOL®	ISO-LEN® 500	ISO-MID PA 6	ISO-POM	ISO-PTFE	ISO-PEEK
Material code	PE-UHMW	PE-UHMW	PE-HMW	PA 6	POM	PTFE	PEEK
Density (g/cm³)	<0,96	0,93	<0,96	1,15	1,41	2,15	1,31
Shore hardness (scale D)	61	61	63 – 65	≈ 80	≈ 83		≈ 88
Wear resistance, acc. Sand Slurry (%)	100	73	350				
Surface resistivity (Ω)	≤10 ¹²	≤10 ¹²	≤10 ¹²	≤10 ¹⁴	≤10 ¹⁴	≤10 ¹⁶	≤10 ¹⁵
Operating temperature short term (°C)	-200 / +90	-200 / +90	-100 / +90	-30 / +170	-50 / +140	-200 / +260	-50 / +300
Operating temperature long term (°C)	-200 / +80	-200 / +80	-100 / +80	-30 / +100	-50 / +100	-200 / +260	-50 / +260
Moisture absorption (%)	<0,01	<0,01	<0,01	0,2	0,05	<0,01	0,02
Suitability for food contact	EU 10/2011, FDA	EU 10/2011, FDA	EU 10/2011, FDA	EU 10/2011, FDA	EU 10/2011, FDA	upon request	EU 10/2011, FDA
Characteristics	• Highest abrasion resistance • Excellent sliding properties	• Similar to ISO-LEN® 1000, but with even better sliding properties and wear resistance	• Good acid resistance • Good sliding properties • Physiologically harmless	• Very hard • Low static charge • Abrasion resistant, tough	• Very hard, impact-resistant • Good machinability • High heat resistance	• Very good chemical resistance • High long term operating temperature	• Good chemical resistance • Very hard • Very high operating temperature
Applications	• Sliding elements • Chain guidances • Rings, sleeves	• Sliding elements • Chain guides • Sliding profiles	• Cutting boards • Linings • Workbenches	• Bearings • Castors • Gears	• Mechanical engineering • Gears, rollers • Snap connections	• Insulating panels • Sealing rings • Discs	• Sliding guide • Sealing gaskets • Temperature-stressed



Detailed material data sheets on: www.iso-tech.net/en/downloads-en



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