Delivery programme
Central- and Eastern Europe

K.D. FEDDERSEN
DISTRIBUTION

People. Think. Plastics.

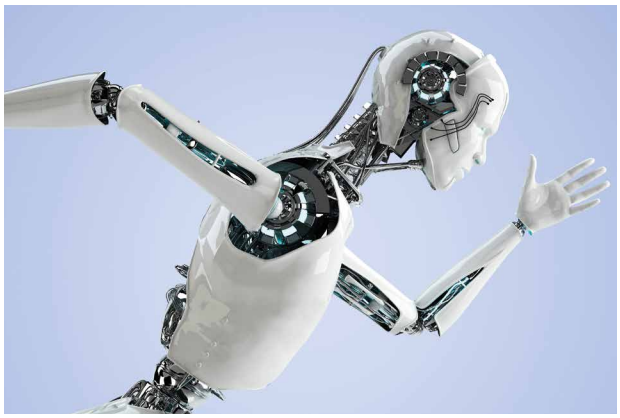
K.D. Feddersen is your competent and reliable partner for engineering plastics. We meet your requirements with products, consulting and services of the highest quality. Together with you we think in solutions. We unite this under our motto "People. Think. Plastics.":

People – together we are successful

Our business is based on people – customers, partners, colleagues. We believe in strong relations and aim for mutual trust and excellence.

Think – our support, your success

New application? New design? New challenge? We think in terms of solutions and as a whole, offering the right plastic, the appropriate logistics concept and individual service: from the design of the application, its manufacture, its use to its recycling at the end of its life. Sustainability, circular economy, a sound environment and satisfied customers are important to us.



Plastics – shaping the future

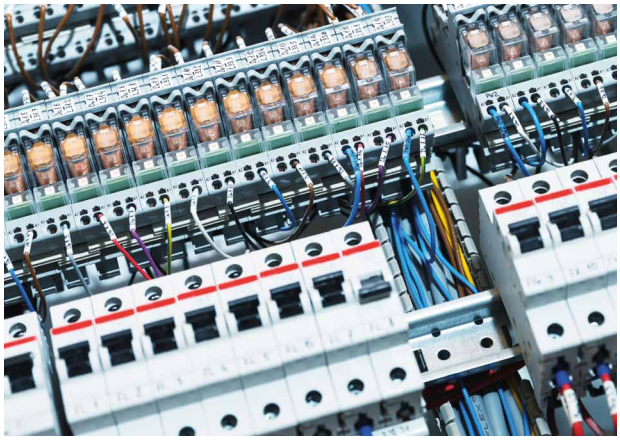
Plastics are versatile and enable innovations for our daily lives. They stand for modern design, are highly functional and protect the environment when used, applied and recycled properly.

Applications and segments

The right material for every application. With our extensive portfolio, we offer the solution for your application.

Mobility

We have the materials and the know-how for automotive applications in the areas of interior, exterior, chassis and under the hood. Whether it is for combustion engines, e-mobility, public transportation, or high fire protection requirements including UL listing – trust our support.



E&E

In electrics and electronics, or E&E for short, plastics not only ensure safety thanks to their mechanical, heat-resistant and insulating properties. They are also frequently used for visible parts and must therefore meet optical requirements.

Agriculture

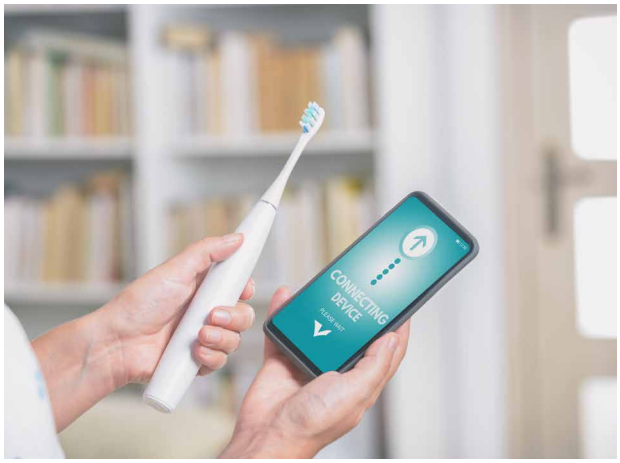
The possible applications of engineering plastics range from the chassis of a tractor to the handle of a shovel. In this area, chemical-resistant, durable materials with good surface quality and haptics are in demand.

Sports and leisure

From tennis rackets and ski boots to e-bikes in the sports and leisure sector, plastic compounds are used that impress with their haptics, mechanics, lightness, stiffness or flexibility.

Industry

Nowadays, plastics can already replace other materials such as metals in many areas of machine or plant construction. Here they score points with their high abrasion resistance, chemical resistance, impact strength as well as their low weight and cost-effective processing.



Consumer goods

A coffee machine without plastics? Incredible! It is not for nothing that many types of plastics have been established in household appliance applications for years. They are resistant to chemicals and offer an excellent surface appearance, such as with electroplating ABS grades for perfect electroplating parts.

What can we do for you?

K.D. Feddersen is your global partner for comprehensive know-how in engineering plastics.

We speak your language and support you throughout the entire process.

We support you in the selection of plastics and know our way around:

- Specification sheets
- OEM specifications
- Approvals and regulations

Our application development always includes the latest trends and technologies for:

- Part design
- Mould concept
- Machine selection

With our process optimisation we ensure:

- Efficiency enhancement
- Quality optimisation
- Decrease of rejects

Even if there are problems, we are there for you:

- Root cause analysis
- On-site assistance
- Complaints handling

We share our knowledge and train you on site or via webinar:

- Basics of plastics
- Basics of injection moulding
- Process optimisation

With project-related marketing, we help you ensure that your projects get the attention they need:

- Press releases
- Professional articles
- Website and social media

Certified management systems

K.D. Feddersen GmbH & Co. KG is certified to the following standards:

- Information security management system (via the K.D. Feddersen Holding GmbH)
  ISO / IEC 27001 : 2017
- Quality management system incl. IQNet
  ISO 9001 : 2015
- Environmental management system
  ISO 14001 : 2015
- Sustainability
  REDcert²
  ISCC PLUS

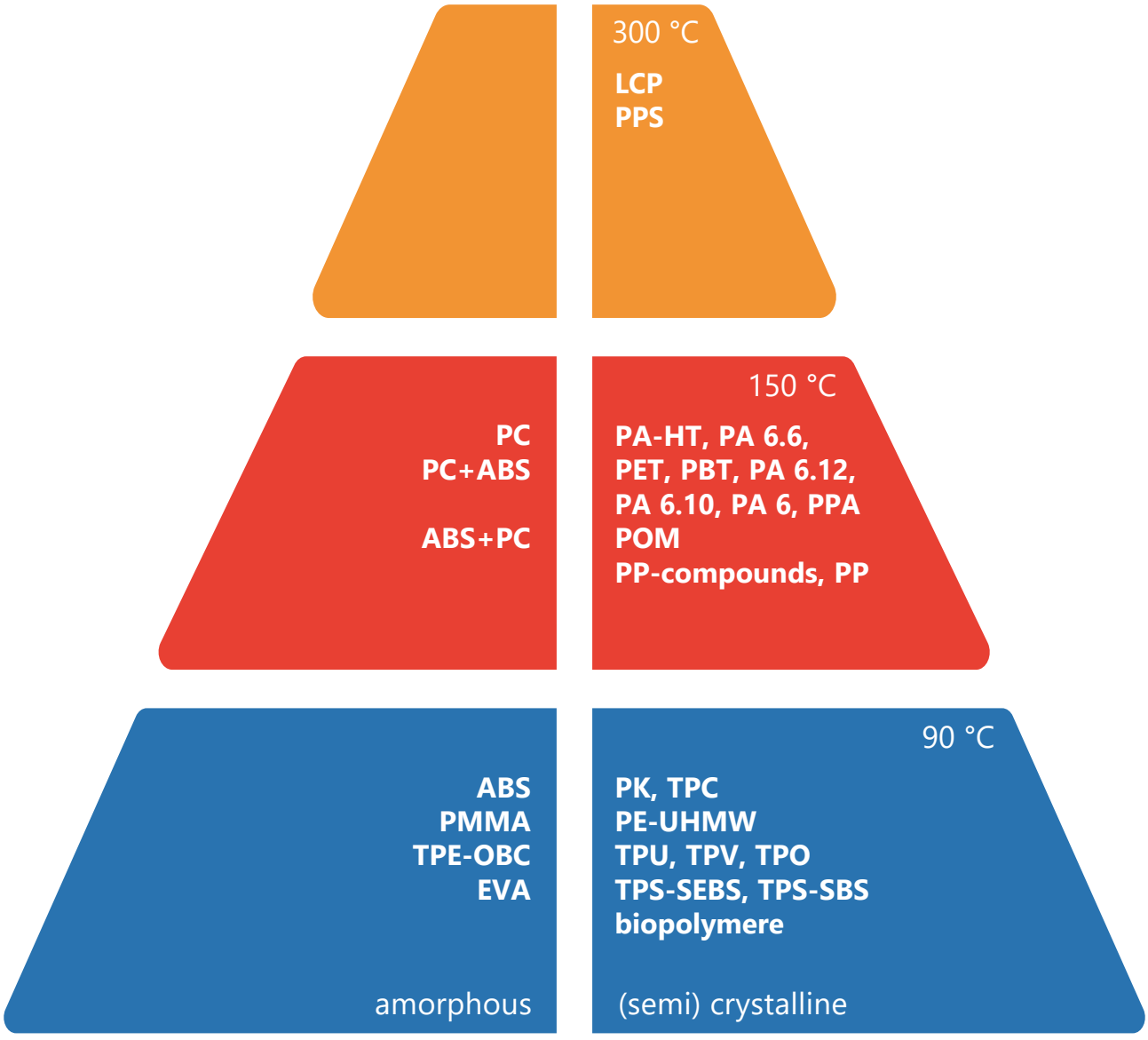
Plastics engineering product development

M.TEC ENGINEERING GmbH has been part of the Feddersen Group since 2018. The Aachen-based engineers develop technical products from idea to series maturity, primarily in the markets of automotive, medical technology, household appliances, electronic devices and building systems technology.

M.TEC supports you in every step of your plastics engineering: analysis and conception, development and design, calculation and simulation (mold flow analysis, FEM calculation), trial and test runs as well as industrialisation (tool technology) – an added value for your projects.

Our products

We offer you a large selection of engineering plastics for a wide range of applications. In the overview below you can see our product portfolio sorted by polymer types and RTI continuous service temperature. Our portfolio ranges from PP, ABS, thermoplastic elastomers, bioplastics and recyclates to high-performance plastics. Contact us!



Products and partners

Celanese
The chemistry inside innovation™

ASCEND PERFORMANCE MATERIALS

ELIX POLYMERS | A member of Sinochem International

TRINSEO

HYOSUNG CHEMICAL

AURORA Kunststoffe GmbH
MEMBER OF MOL GROUP

SKYTECH
second life polymers

TEIJIN Human Chemistry, Human Solutions
TEIJIN KASEI EUROPE B.V.

BIO-FED
GREEN COMPOUNDS

AF-COLOR
MASTERBATCHES

Products and partners

Celanese
The chemistry inside innovation™

HOSTAFORM®, HOSTAFORM® ECO-B, KEPITAL®
(POM copolymers for increased requirements)

Properties
- Extremely tough (up to -40 °C)
- Extremely hard and stiff
- High heat distortion temperature (service temperatures up to +100 °C)
- Excellent spring characteristics
- Favourable electric and dielectric behaviour
- Very good coefficient of friction
- Low tendency for environmental stress cracking
- Good chemical resistance to e.g. fuels, solvents and strong alkalies
- Low water absorption
- Easily processed
- Low CO_2 footprint, which can be declared for Hostaform ECO-B

Features
- Standard grades
- Easy-flowing grades
- High-strength grades
- Glass fibre reinforced and glass bead reinforced grades
- Grades with improved coefficient of friction
- Impact-strength-modified grades (S grades)
- Emission-optimised grades (XAP grades)
- Grades for use in the food industry or drinking water applications
- Grades with superior resistance to corrosive media such as highly active detergents or chlorinated water
- Hot-diesel-fuel-resistant grades (XF grades)
- Available in a wide variety of colours
- Special colours for laser marking
- UV-stabilised grades
- Electrically conductive grades (EC grades)
- Biobased[1] grades
- Medical grades (MT grades)

AMCEL® (POM copolymers)

Properties
- Extremely tough (up to -40 °C)
- Extremely hard and stiff
- High heat distortion temperature (service temperatures up to +100 °C)
- Good sliding behaviour
- Easily processed

Features
- Natural or black coloured
- 3 different flowabilities
- Food approval grades

POM MFI 9 (POM copolymers for standard requirements)

Properties
- Extremely tough (up to -40 °C)
- Extremely hard and stiff
- High heat distortion temperature (service temperatures up to +100 °C)
- Easily processed

Features
- Natural
- Medium viscosity

FORTRON® (PPS)

Properties
- Linear PPS
- Service temperatures up to +240 °C
- Suitable for lead-free soldering
- Inherently flame-retardant (UL 94 V0, some grades with 5 VA)
- Very good resistance to chemicals and oxidation
- Extreme stiffness and strength
- Minimal water absorption
- Very little creep, even at elevated temperatures

Features
- Non-reinforced grades (powder and pellets)
- Glass fibre reinforced grades (pellets)
- Glass fibre/mineral reinforced grades (pellets)
- Grades for food and drinking water applications
- Blow moulding grades
- Film and fibre grades
- Flexible PPS
- Medical grades (MT grades)

Sustainable alternatives possible

Celanese
The chemistry inside innovation™

VECTRA® (LCP)

Properties
- Service temperatures up to +240 °C, short-term up to +340 °C
- Very low melt viscosity
- Extremely close tolerances possible (up to tolerance class T6)
- Very low heat of fusion (extremely short cycle times possible)
- Flash-free injection moulding
- Very high tensile strength (to 200 MPa) and modulus of elasticity (to 30,000 MPa)
- High impact strength
- Very small linear coefficient of thermal expansion, comparable to that of steel and ceramic
- Inherently flame-retardant (UL 94 V0, some grades with 5 VA)
- Very good resistance to chemicals and oxidation
- Minimal water absorption

Features
- Glass fibre reinforced grades
- Carbon fibre reinforced grades
- Fibre/filler modified grades
- Mineral and graphite filled grades
- Electroplating and conductive grades
- Extrusion grades
- Medical grades (MT grades)

ZENITE® (LCP)

Properties
- Service temperatures up to +240 °C, short-term up to +340 °C
- Very low melt viscosity
- Extremely close tolerances possible (up to tolerance class T6)
- Very low heat of fusion (extremely short cycle times possible)
- Flash-free injection moulding
- Very high tensile strength (to 200 MPa) and modulus of elasticity (to 30,000 MPa)
- High impact strength
- Very small linear coefficient of thermal expansion, comparable to that of steel and ceramic
- Inherently flame-retardant (UL 94 V0, some grades with 5 VA)
- Very good resistance to chemicals and oxidation
- Minimal water absorption

Features
- Glass fibre reinforced grades
- Carbon fibre reinforced grades
- Fibre/filler modified grades
- Mineral and graphite filled grades
- Electroplating and conductive grades
- Extrusion grades

CELANEX®, CELANEX® ECO-B (PBT)

Properties
- Extremely hard and stiff
- Good creep behaviour
- High heat distortion temperatures, particularly in glass fibre reinforced grades (service temperatures to +140 °C)
- Favourable coefficient of friction and wear performance
- High dimensional stability (small coefficient of thermal expansion, low water absorption)
- Good electrical characteristics
- Good chemical resistance
- No environmental stress cracking
- Good weathering resistance
- Rapid crystallisation resulting in optimised cycle times
- Paintable
- Flame-retardant (UL 94 V0, some grades with 5 VA) with proper surface treatment

Features
- Glass fibre reinforced grades
- Glass bead reinforced grades
- Glass fibre reinforced grades with high-gloss surface
- Glass fibre/mineral reinforced grades
- UV-stabilised grades
- Standard and halogen-free grades with flame-retardant surface treatment (XFR types), listed UL 94 V0, partial 5 VA
- Special colours for laser marking
- MetalX metallic effect
- Recycled grades
- Biobased[1] grades
- Medical grades (MT grades)
- BPA free grades

Sustainable alternatives possible

Products and partners

Celanese
The chemistry inside innovation™

CRASTIN®, CRASTIN® ECO-B (PBT)

Properties
- Extremely hard and stiff
- High dimensional stability (small coefficient of thermal expansion, low water absorption)
- High heat distortion temperatures
- Good weathering resistance
- Good electrical characteristics
- Good chemical resistance
- Good surface quality
- Flame-retardant (V-0) with proper surface treatment
- Easy processing

Features
- Glass fibre reinforced grades (up to 50 %)
- Glass bead reinforced grades
- Hydrolysis-stabilised grades
- Low-distortion grades
- Orange coloured grades for HV connectors and busbars
- Food contact grades
- Standard and halogen-free grades with flame-retardant
- UV-stabilised grades
- Special colours for laser marking
- Biobased[1] grades

PIBITER® (PBT)

Properties
- Extremely hard and stiff
- Good chemical resistance
- High dimensional stability
- Good electrical properties
- Excellent performance at high temperatures

Features
- Flame-retardant grades
- Elastomer modified grades (PIBITER® HI)

THERMX® (PCT)

Properties
- High-temperature-resistant polyester (based on polycyclohexylene dimethylene terephthalate chemistry)
- Chemical resistance to auto fluids
- Excellent temperature resistance
- Hydrolysis resistance better then PET and PBT
- Negligible moisture effect
- Dimensional stability
- Melting temperature +290 °C
- Same shrinkage as PBT
- Excellent colourability
- USCAR classification (class IV)
- Suitable for lead-free soldering

Features
- Glass fibre reinforced and/or mineral filled grades
- Flame-retardant grades

VANDAR® (PBT-HI)

Properties
- High impact strength and notched impact strength, even at low temperatures
- High heat distortion temperatures, especially in glass fibre reinforced grades (service temperatures up to +120 °C)
- Highly resistant to organic solvents, fuels and lubricants
- Highly wear-resistant
- Easily processed
- Paintable

Features
- Glass fibre reinforced grades
- Flame-retardant grades

Sustainable alternatives possible

Celanese
The chemistry inside innovation™

IMPET® (PET)

Properties
- Exceeding stiffness and strength
- Good creep behaviour
- Paintable surface
- High heat distortion temperatures (HDT/A up to +228 °C)
- Service temperature up to +150 °C
- Favourable coefficient of friction
- Very good electric/dielectric properties
- High chemical resistance and weathering stability

Features
- Glass fibre reinforced grades
- Custom colour matching
- Recycled grades

CELSTRAN® LFRT (long fibre reinforced thermoplastics)

Properties
- Long fibre reinforcement creates a fibre skeleton in the component which easily meets crash-test requirements
- Impact strength at least twice as high and notched impact strength two to three times higher than for short fibre compounds
- Mechanical values remain constant over a wide temperature range
- High heat distortion temperature
- Low creep, low warpage and shrinkage
- Standard fibre length: 10 mm

Features
- Polymerbasis: PP, PA, TPU, ABS, PPS, POM, PEEK, PBT (further matrix materials on request)
- Glass fibre reinforced grades: fibre content 20–60 %
- Carbon(C) fibre reinforced grades
- Aramide fibre reinforced grades
- Stainless steel fibre reinforced grades for electrical shielding

GUR®, GUR® ECO-B (PE-UHMW)

Properties
- Polyethylene, ultra-high molecular weight
- Exceptionally high notched impact strength
- High energy absorption at high stress rate
- Excellent slip properties and very low wear
- Very high chemical resistance to acids and alkalies
- Highly resistant to environmental stress cracking
- Very good noise- damping properties
- Can be used in a variety of applications due to wide service temperature range, -200 °C to +90 °C

Features
- Modified grades and special purpose formulations for pressureless sintering and compression moulding
- Heat conductive grade
- Grades with additives (such as micro-powder)
- Biobased[1] grades

COOLPOLY® (thermally conductive compounds)

Properties
- Thermal conductivity from 1 to 40 W/m K
- Efficient heat dissipation and cooling
- Avoidance of heat accumulation
- Extends the service life of parts and components
- UL listed with UL 94 V0 (product-dependent)

Features
- PA 6, PPS, LCP, TPE
- Thermally conductive and electrically insulating grades (1–10 W/m K)
- Thermally and electrically conductive grades (2–40 W/m K)

FRIANYL® (PA 6, PA 6.6, PPA flame-retardant compounds)

Properties
- Flame-retardant PA 6, PA 6.6 or PPA, halogen- and phosphorus-free, or with red phosphorus, or with halogens
- More than 80 grades are UL-listed or certified by VDE
- Offered in a wide range of colours (product-dependent)
- Extremely good impact strength
- High chemical-resistance
- Exceedingly strong and stiff

Features
- Non-reinforced flame-retardant grades (UL 94 V0 listed)
- Mineral reinforced flame-retardant grades (UL 94 V0 listed)
- Glass fibre reinforced flame-retardant grades (UL 94 V0 listed)
- Customised colour settings

Sustainable alternatives possible

Products and partners

Celanese
The chemistry inside innovation™

CELANYL® (PA 6, PA 6.6, PPA)

Properties
- Easy to process
- Extremely good impact strength
- High chemical-resistance
- Exceedingly strong and stiff
- Dimensional accuracy
- Minimal creep
- Good mechanical properties
- Excellent resistance to organic solvents
- High wear resistance and fatigue strength
- Good processability and flowability

Features
- Non-reinforced grades
- Glass fibre reinforced grades up to 60 %
- Mineral reinforced grades
- Glass bead reinforced grades
- Carbon fibre reinforced grades
- Metal reinforced grades (e.g. copper)
- Tribological grades (e.g. PTFE, molybdenum disulphide)
- Customised colour settings
- Flame-retardant grades
- Electrically conductive grades
- Elastomer modified grades

ECOMID® (recycled PA 6, PA 6.6 compounds)

Properties
- Recycled post industrial PA 6, PA 6.6 compounds containing high-quality polyamide fibres and textiles
- High and consistent quality
- Sustainability
- Good impact strength
- Very good strength and stiffness
- UL listed with UL 94 HB (product-dependent)
- Very good processability
- High resistance to organic solvents
- Good resistance to wear and fatigue at high temperatures
- Good mechanical properties
- Compliant with RoHS norms

Features
- Non-reinforced grades
- Glass fibre reinforced grades
- Impact-modified grades
- Heat-stabilised grades
- Mineral-filled grades

POLIFOR® (PP)

Properties
- High stiffness and abrasion resistance
- Excellent chemical resistance
- Low moisture absorption

Features
- Non-reinforced and reinforced polypropylene compounds
- Flame-retardant grades

TECNOPRENE® (PP/GF)

Properties
- High stiffness and mechanical strength
- High tensile strength
- Increased heat resistance

Features
- Glass fibre reinforced grades
- Glass fibre/mineral reinforced grades
- Elastomer modified grades
- Grades for contact with food

TALCOPRENE (PP/TALC)

Properties
- Good dimensional stability
- Good mechanical properties

Features
- Talcum reinforced grades

Sustainable alternatives possible

Celanese
The chemistry inside innovation™

LAPRENE® (TPS-SEBS)

Properties
- Styrene-ethylene-butylene-styrene basis
- Service temperature from -50 °C to +120 °C
- Excellent UV, ozone and weather resistance
- Excellent resistance to bases, alcohols and acids
- High resilience within a large temperature range
- Recyclable

Features
- Hardness ratings from 2 Shore A to 60 Shore D
- Injection moulding grades
- Extrusion grades
- Transparent and translucent grades

SOFPRENE® (TPS-SBS)

Properties
- Block copolymer styrene-butadiene-styrene
- Service temperature from -50 °C to +60 °C
- Excellent resistance to various chemical substances, such as bases, acids, alcohols, detergents and aqueous solutions
- Good abrasion resistance
- High resilience within a large temperature range
- Recyclable

Features
- Hardness ratings from 25 Shore A to 40 Shore D
- Injection moulding grades
- Extrusion grades, from 40 Shore D
- Transparent grades

FORFLEX® (TPO)

Properties
- Thermoplastic polyolefin
- Outstanding elastic properties at low temperatures
- Good weather resistance
- Low density, from 0.89 g/cm^3
- Recyclable

Features
- Hardness ratings from 65 Shore A to 60 Shore D
- Injection moulding grades
- Extrusion grades
- Grades with food safety approval

ATEVA®G (EVA)

Properties
- Ethylene vinyl acetate
- Biocompatible (USP CL VI; ISO 10993)
- Approved for pharmaceutical and food applications
- Optically transparent
- Offers design flexibility
- Good tear and impact resistance
- Processes at low temperatures

Features
- 9 % vinyl acetate
- 18 % vinyl acetate (antioxidant)
- 28 % vinyl acetate (antioxidant/light flow)
- AT LDPE (high melt strength)
- Biobased[1] grades
- Medical grades (MT grades)

Products and partners

ASCEND PERFORMANCE MATERIALS

Vydyne® (PA 6.6)

Properties
- High strength and stiffness
- High thermal resistance
- Very good impact strength
- Low creep tendency
- Good chemical resistance
- High surface quality
- Easy to process
- Good colourability
- Good tribological properties

Features
- Non-reinforced
- Impact-modified grades
- Heat-stabilised grades
- Hydrolysis-stabilised grades
- Grades with very good long-term ageing resistance
- Glass fibre reinforced up to 50 %
- Glass bead reinforced up to 50 %
- Carbon fibre reinforced up to 40 %
- UV-stabilised and weather-resistant grades
- Grades for extrusion (also with food approval)

Vydyne® (PA 6) | POLIMID (PA 6, PA 6.6)

Properties
- Easy to process
- High strength and stiffness
- Very good impact strength
- Low creep tendency
- Good colourability
- Excellent surface finish

Features
- Impact-modified grades
- Glass fibre reinforced grades up to 60 %
- Glass bead reinforced grades up to 50 %
- Carbon fibre reinforced grades up to 40 %
- UV-stabilised and weather-resistant grades
- Customised colour settings

HiDura® (PA 6.10, PA 6.12, PA-HT)

Properties
- Very good chemical resistance
- Hydrolysis resistance
- High low-temperature impact strength
- Good tribological properties
- Very good barrier properties
- Very good weathering resistance
- Dimensional stability
- Ductile
- High heat stability

Features
- Non-reinforced
- Glass fibre reinforced grades up to 30 %
- Impact-modified grades

Starflam® (flame-retardant compounds)

Properties
- Very good wear resistance
- Very good impact strength
- Heat stabilised
- Low corrosion
- Very good insulation properties
- Very good flowability
- Halogen-free and free of red phosphorus
- Cross-linked types dimensionally stable at >300 °C

Features
- Non-reinforced and reinforced grades PA 6, PA 6.6, PA 6.6/6
- UL 94 listed (up to 5VA)
- Glass fibre reinforced grades up to 45 %
- Mineral reinforced grades up to 40 %
- Electrically neutral grades
- Radiation cross-linkable grades
- Customised colour settings

ReDefyne (recycled PA 6.6-, PA 6 compounds)

Properties
- Up to 100 % from pre- and post-consumer recyclatese
- Good and consistent quality
- CO_2 footprint data

Features
- Impact-modified grades
- Glass fibre reinforced grades up to 50 %
- Available in black

Sustainable alternatives possible

ELIX POLYMERS | A member of Sinochem International

ELIX® (ABS, ABS+PC)*

Properties
- Emulsion ABS
- Opaque
- High gloss
- High impact strength and notched impact strength
- High stiffness
- Good flowability
- Heat deflection temperature up to +113 °C to Vicat B50
- Excellent dimensional stability
- Excelent paintability
- UL listed with UL 94 HB (product dependent)

Features
- Automotive grades
- UV-stabilised grades
- Emission-reduced grades
- Types with stick-slip effect (anti squeak)
- Electroplating grades
- Antistatic grades
- Coloured versions according to RAL, OEM colours etc.
- Coloured versions with less gloss
- White coloured grades with high light reflection and light blocking
- Grades with food approval for food contact applications, toys and cosmetics containers

ELIX® (PC+ABS)*

Properties
- High flow
- High heat distortion temperature
- Very high impact, also at -40 °C
- UV-stabilised
- Low emission
- Excellent processability and paintability

Features
- Injection moulding grades with Vicat B120 for +120 °C and +130 °C
- Standard black
- Coloured versions according to RAL, OEM colours etc.

E-LOOP (mechanical recycled ABS+PC and PC+ABS)*

Properties
- Recycled material used in the formulation
- Reduced CO_2 footprint
- Equivalent properties to prime versions
- High heat resistance
- Good flowability

Features
- Injection moulding grade
- Automotive grade
- Non-reinforced grade
- Low emission grade
- Standard black and on request in BMW black, Daimler black etc.

* Availability of our business partner's productd may vary by region.

Products and partners

TRINSEO™

ALTUGLAS™ (PMMA)

Properties
- High transparency and brilliance
- Excellent UV and weather resistance
- High surface hardness and abrasion resistance
- Polishable surface
- High rigidity and good mechanical properties
- Good heat resistance and chemical resistance

Features
- Standard grades
- Impact-modified grades
- Grades with improved chemical resistance
- Heat-resistant grades
- Frost, matt or special colourable grades
- Light-scattering grades
- LPL grades (Long Path Length)
- R-Life (reduced carbon footprint, chemically or mechanically mechanically recycled)

API L™ (TPC)

Properties
- Thermoplastic copolyester elastomer (TPC)
- Service temperature from -40 °C to +120 °C
- High fatigue strength, elasticity and stiffness, even at low temperatures
- Maintains properties even at high temperatures
- Good chemical resistance (also against oils and solvents)

Features
- Hardness ratings from 25 Shore A to 72 Shore D
- Injection moulding grades
- Extrusion grades
- Food approval grades available (EU 10/2011, FDA)

APINAT™ (biodegradable[2] TPC)

Properties
- TPC compounds – biodegradable[2] according to EN 13432
- Good low-temperature flexibility
- High thermostability
- Easy processing
- Can be coloured with biodegradable[2] colour masterbatches

Features
- Hardness ratings from 60 Shore A to 78 Shore D
- Food approval grades available (EU 10/2011, FDA)
- Biobased[1] grades from hardness 30 Shore D
- Injection moulding grades
- Extrusion grades
- Blow moulding grades

APILON™ 52 (TPU)

Properties
- Thermoplastic polyurethane elastomer
- Service temperature of TPU ester from -30 °C to +100 °C
- Service temperature of TPU ether from -50 °C to +90 °C
- Excellent wear and abrasion resistance
- Very good low-temperature flexibility
- High long-term stability
- High resistance to oils, greases, oxygen and ozone

Features
- Hardness ratings from 40 Shore A to 72 Shore D
- Injection moulding grades
- Extrusion grades
- Grades with increased transparency
- Haptic-optimised grades with a rubber-like and matt surface
- Adhesion-modified grades for a wide range of polymers (polar as well as non-polar) available
- Biobased[1] grades (**APILON™ 52 BIO**) and recycled-based grades (**APILON™ 52 ECO**)

NEOGOL™ (OBC)

Properties
- Olefin block copolymer
- Service temperature from -50 °C to +80 °C
- Good tear resistance
- Chemical resistance to acids, alkalis, detergents and aqueous solutions
- Halogen-free
- As an alternative for TPE when no specific physical-mechanical properties are required

Features
- Hardness ratings from 20 Shore A to 60 Shore D
- Injection moulding grades
- Suitable for substitution of PVC

Availability of our business partner's productd may vary by region.

Sustainable alternatives possible

TRINSEO

TIVILON™ (TPV)

Properties
- Dynamically vulcanised thermoplastic elastomer (TPV)
- Service temperature from -40 °C to +130 °C
- Very good mechanical properties
- Good compression set over a wide temperature range
- High resistance to UV and heat ageing
- Easier processing (compared to conventional TPVs)
- Very good colourability

Features
- Hardness ratings from 30 Shore A to 60 Shore D
- Injection moulding grades
- Extrusion grades

MEGOL™ (TPS-SEBS)

Properties
- Styrene/ethylene-butylene/styrene block copolymer
- Service temperature from -50 °C to +120 °C
- Excellent soft-touch properties
- Good compression set
- Excellent long-term stability (against UV, ozone and weathering)

Features
- Hardness ratings from 5 Shore A to 60 Shore D
- Injection moulding grades
- Extrusion grades
- > 300 active colours and custom colour settings
- Customised solutions: A wide variety of modified MEGOL™ grades available
- Special MED grades for healthcare applications
- Biobased[1] grades (**MEGOL™ BIO**) and recycled-based grades (**MEGOL™ ECO**)

RAPLAN™ (TPS-SBS)

Properties
- Styrene/butadiene block copolymer
- Service temperature from -50 °C to +60 °C
- Very good low-temperature flexibility
- Good resistance to acids and alkalis
- High abrasion and slip resistance
- Halogen-free, sterilisable and resistant against a wide range of cleaning agents

Features
- Hardness ratings from 20 Shore A to 50 Shore D
- Injection moulding grades
- Extrusion grades
- Food approval grades available (EU 10/2011, FDA)
- Wide range of different viscosities available
- Suitable for the substitution of rigid PVC

APIGO™ (TPO)

Properties
- Thermoplastic polyolefin
- Service temperature from -50 °C to +90 °C
- Good tear resistance
- Very good low-temperature flexibility
- Good resistance to acids and alkalis
- Halogen-free

Features
- Hardness ratings from 20 Shore A to 60 Shore D
- Injection moulding grades
- Extrusion grades
- Custom formulations for airbag covers
- Food approval grades available (EU 10/2011, FDA)
- Suitable for the substitution of soft PVC
- Biobased[1] grades **(APIGO™ BIO)** and grades based on recycled material **(APIGO™ ECO)**

APICOLOR™ (colour concentrates for TPE)

Properties
- Colour concentrates for the self-colouring of thermoplastic elastomers

Features
- Broad spectrum based on polymers: PE, EVA, PVC, PS, TPU
- Individual colour matching, according to RAL, PANTONE and NCS

Sustainable alternatives possible

Products and partners

HYOSUNG CHEMICAL

POKETONE™ (PK)

Properties
- High impact strength
- Very good resilience
- High dimensional stability
- Very good resistance to wear
- Good tribological properties
- Very good hydrolysis resistance
- High chemical resistance
- Extraordinary barrier effect against fuel and oxygen
- UL listed (product-dependent)

Features
- Non-reinforced grades
- Glass fibre reinforced grades
- Flame-retardant grades
- Tribological modified grades
- Grades for food and drinking water applications

AURORA Kunststoffe GmbH
MEMBER OF MOL GROUP

Recompounds (ABS, PC+ABS, PC, POM, PPS, PP, PA 6, PA 6.6, PA 12, PBT)

Properties
- Produced with pre-sorted post-industrial plastics
- At a similar level to virgin compounds
- Consistent quality
- Products based on up to 95 % sustainable raw materials
- Low CO_2 footprint, which can be declared for recompounds

Features
- AUROran® (ABS)
- AUROblend® (PC+ABS)
- AUROlon® (PC)
- AUROmid® (PA 6, PA 6.6, PA 12)
- AUROcom® (PP)
- AUROform® (POM)
- AURODur® (PBT)
- AUROtron® (PPS)

These recompounds are available from Aurora:
- Depending on product, unfilled and/or modified with filler system
- Generally black, natural or pre-coloured on request
- Further products on request

SKYTECH
second life polymers

Post-consumer recycled plastics (rABS, rPS)

Properties
- 100 % post-consumer* recyclate
- Produced using a patented process (triboelectricity)
- Quality level comparable to new compounds
- Consistent quality from batch to batch
- Lower CO_2 footprint compared to new compounds
- Compliant with RoHS norms
- Verry good processability
- (rABS): High heat deflection temperature up to 103 °C according to Vicat B50

*Recycled plastics from household or industrial waste

Features
Skylonitrile® (rABS):
- Izod impact strength (KJ/m², 23°, ISO 180): 10-12; 12-14; 14-16;16-18
- Products with MFI range (g/10 min., ISO 1133, 220°/10 kG.): 10-55

Skystyrene® (rPS):
- Izod impact strength (KJ/m², 23°, ISO 180): 6-8; 8-10
- Products with MFI range (g/10 min. ISO 1133, 220°/5 kG.): 5-7
- Available in black, grey and white

Availability of our business partner's productd may vary by region.

TEIJIN Human Chemistry, Human Solutions

TEIJIN KASEI EUROPE B.V.

Multilon® (PC+ABS)

Properties
- High impact strength, Charpy notched impact strength (+23 °C) 50-75 kJ/m²
- Excellent flow behaviour, MVR (260 °C/5 kg) up to 28 cm³/10 min
- High heat deflection temperature up to 128 °C according to Vicat B50
- Excellent processability and paintability

Features

Unfilled PC+ABS blends for automotive interior applications:
- High heat resistance, easy flowing
- Medium heat resistance, easy flowing
- Low density, low gloss

Flame-retardant PC+ABS blends:
- V0, halogen-free grades

Panlite® (PC)

Properties
- High strength, stiffness and hardness
- Excellent impact strength
- High heat deflection temperature
- Good electrical properties
- High optical quality
- UL listed (product-dependent)

Features
- Standard PC, colourless
- Standard PC, UV-stabilised (UL 746C f1), colourless
- Light-diffusing, (UL 94 V2 listed), UV stabilised (UL 746C f1) , white
- Flame retardant (UL 94 V0 listed), light-diffusing, UV stabilised (UL 746C f1), white
- Flame retardant (UL 94 V0 listed), UV stabilised (UL 746C f1), coloured

BIO-FED GREEN COMPOUNDS

M·VERA® (biodegradable[2] and/or biobased[1] polymers)

Properties
- Based on different levels of renewable raw materials and/or biobased carbon
- Biodegradable in various environments, also industrially compostable
- Can be coloured individually - for example with the biopolymer-based AF-Eco® masterbatches

Features
- GP series for universal use (e.g. injection molding, extrusion and thermoforming)
- A series for agricultural films
- B series for bag applications

M·BIOBASE® (biomass-balanced PP)

Properties
- Compounds made from biomass-balanced polypropylene
- Raw material sources for the PP are vegetable oil and fat waste
- Reduced CO_2 footprint
- Certified according to ISCC Plus or REDcert[2]

Features
- PP Homo (PPH)
- PP Copo (PPC)

AF-Eco® (biodegradable[2] and/or biobased[1] masterbatches)

Properties
- Colour, carbon black and additive masterbatches available
- Colour masterbatches certified in accordance with OK compost INDUSTRIAL (EN 13432)
- Excellent dispersion
- Free of heavy metals and phthalates

Features
- AF-Eco® colour masterbatches
- AF-Eco® Carbon black masterbatches
- AF-Eco® additive masterbatches
  - Lubricant masterbatches
  - Anti-block masterbatches
  - Blowing agent masterbatches

Products and partners

AF-COLOR MASTERBATCHES

AF-Color® (colour masterbatches)

Properties
Custom masterbatches according to customer requirements.
In addition, the following effects are possible:
- Metallic effects
- Mother-of-pearl effects
- Iridescent effect
- Luminescence (fluorescence, phosphorescence)
- Thermochromism
- Photochromism

Features
Standard for colouring the following based on grade-compliance:
- PE, PP
- PA
- POM
- PBT, PET
- Styrene copolymers
- As well as other engineering polymers

AF-Carbon® (engineering carbon black masterbatches)

Properties
Engineering carbon black masterbatch based on different pigment types:
- Carbon black
- Lamp black
- Organic and inorganic black colouration
- Nigrosine
- NIR-reflecting preparations

Features
Standard for colouring the following based on grade-compliance:
- PE, PP
- PA
- POM
- PBT, PET
- Styrene copolymers
- As well as other engineering polymers

AF-Complex® (additive masterbatches)

Properties
Customised additive masterbatches according to customer requirements.
- UV stabilisers
- Static inhibitors
- Lubricants
- Laser additives
- Antioxidants/heat stabilisers
- Endothermic blowing agents
- Further additive combinations available on request

Features
Standard for colouring the following based on grade-compliance:
- PE, PP
- PA
- POM
- PBT, PET
- Styrene copolymers
- As well as other engineering polymers

AF-Clean® (purging compounds)

Properties
Purging compounds for all thermoplastics in injection moulding, extrusion and blow moulding.

Features
- AF-Clean® Basic for temperature range from +160 °C to +240 °C
- AF-Clean® HT for temperature range from +240 °C to +380 °C

[1] Polymers based on renewable raw materials in varying proportions.

[2] Compounds that can be added to industrial composting processes and, in some cases, to household compost. The criteria used for the assessment are subject to regular inspection by recognised bodies commissioned by us. The corresponding results are documented by the issue of appropriate certificates. Further information on this at https://bio-fed.com/certifications.

Availability of our business partner's productd may vary by region.

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