

Delivery Programme

Central- and Eastern Europe



K.D. Feddersen CEE GmbH
Member of the Feddersen Group



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.

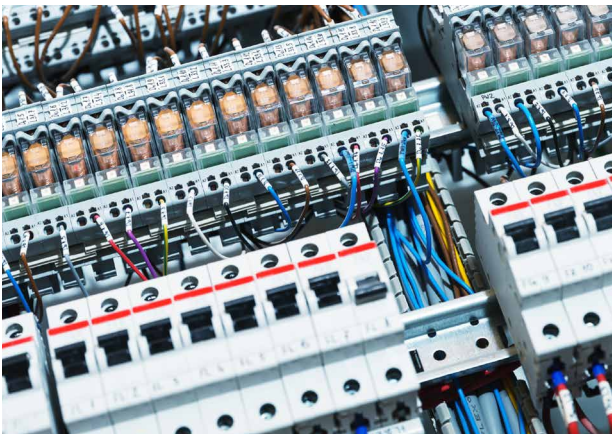
Applications and Segments

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.



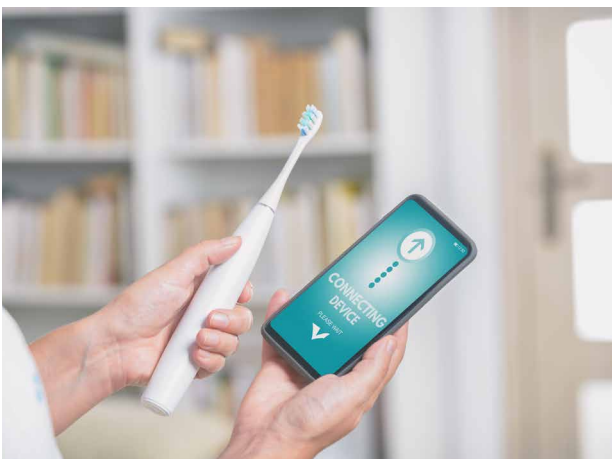
Sports and Leisure

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



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

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



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

- Part design
- Mould concept
- Machine selection



We share our knowledge and train you and your colleagues on site:

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



With our process optimisation we ensure:

- Efficiency enhancement
- Quality optimisation
- Decrease of rejects



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

- Press releases
- Professional article
- Website and social media

Certified Management Systems

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

- **Quality management system**
incl. IQNet
ISO 9001 : 2015
- **Quality management system**
IATF 16949 : 2016
- **Environmental management system**
ISO 14001 : 2015

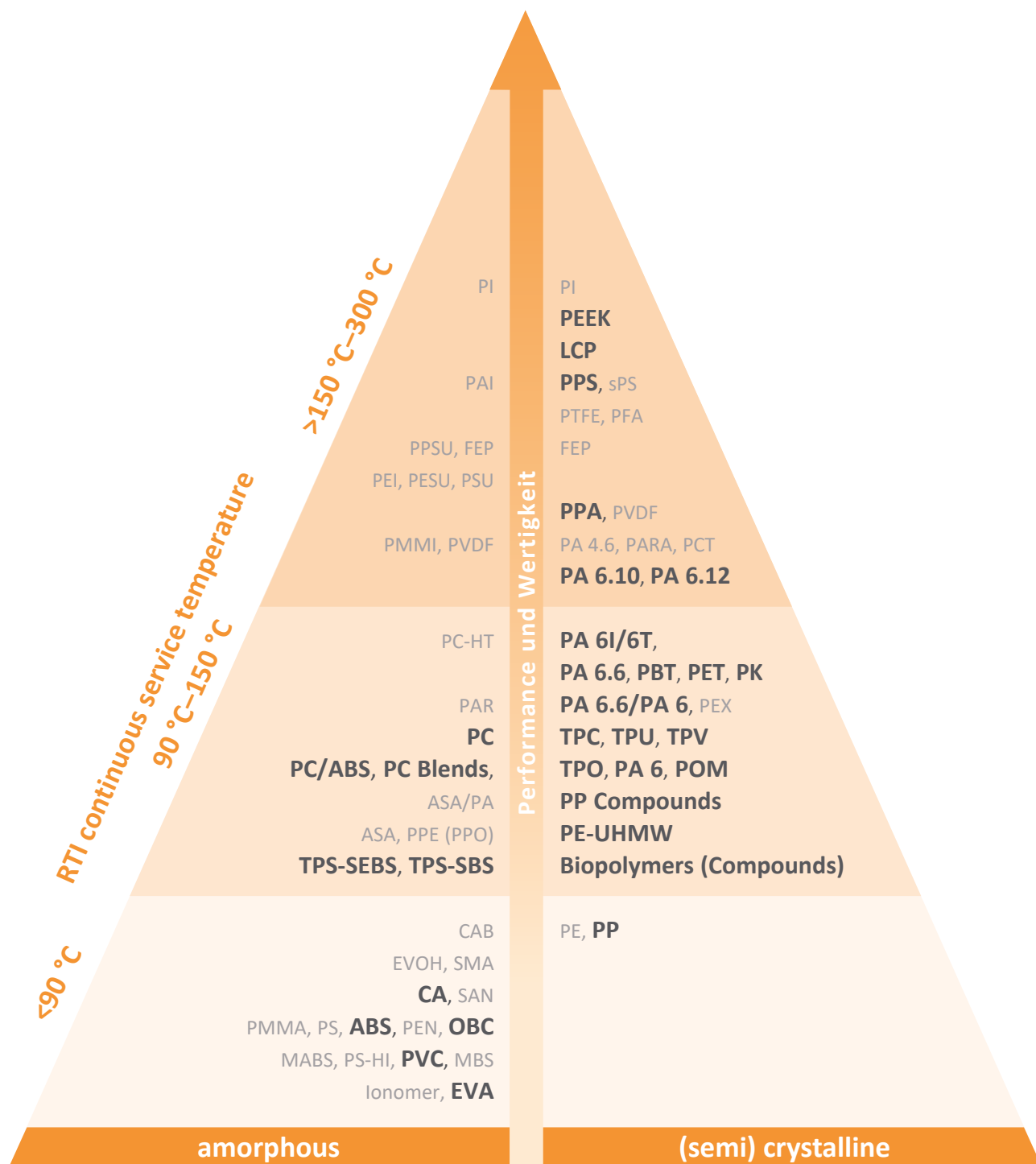
Plastics Engineering Product Development

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 (mould flow analysis, FEM calculation), trial and test runs as well as industrialisation (tool technology) – an added value for your projects.

Our Polymers

We offer a wide selection of polymers for all applications. They range from PP compounds to bioplastics and thermoplastic elastomers to high-performance polymers such as LCP and PEEK.



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Products and Partners



HOSTAFORM®, CELCON® (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 alkalis
- Low water absorption
- Easily processed

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)
- Grades for medical technology (MT grades) raus
- 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 colors
- Special colors for laser marking
- UV stabilised grades
- Electrically conductive grades (EC grades)
- Biobased grades
- Medical grades (MT grades)

AMCEL® (POM Copolymers for Increased Standard Requirements)

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 colored
- 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)

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® (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

- Standard grades
- 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 colors for laser marking
- MetalX metallic effect
- Recycled grades
- Biobased grades
- Medical grades (MT grades)

PIBITER®, PIBIFOR (PBT)

Properties

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

Features

- Flame-retardant grades (UL 94 V0)
- Elastomer modified grades (PIBITER® HI)

Products and Partners



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

- Standard grades
- Glass fibre reinforced grades
- Grades with flame-retardant surface treatment

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 color 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

- Matrix materials: 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® (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

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

CELAPEX® Polyetheretherketone (PEEK)

Properties

- Excellent chemical resistance even at high temperatures
- Strong resistance to the organic and aqueous environments and to solvents
- Very resistant to thermal degradation
- Excellent mechanical properties at high temperatures
- Moulding of thin wall intricate parts and components with long flow length
- Ease of processing even at high filler loading
- Moulding at lower injection and lower melt temperature
- Part making productivity at lower conversion cost
- Low warpage in tight-tolerance, high precision parts

Features

- Non-reinforced grades
- Glass fibre reinforced grades
- Carbon fibre reinforced grades, also with sliding properties (e.g. PTFE)

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 colors (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 color settings

CELANYL® formerly NILAMID (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 color settings
- Flame-retardant grades
- Electrically conductive grades
- Elastomer modified grades

Products and Partners



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

CARBOPRENE (PP/CA)

Properties

- Good shape retention
- Favourable mechanical properties

Features

- Calcium carbonate reinforced grades

RITEFLEX TPC-ET (TPE-E)

Properties

- Very flexible and tough, even at low temperatures
- High mechanical strength and good resilience
- Highly resistant to chemicals and ageing
- Excellent surface gloss and good paintability
- Easy, economical thermoplastic processability
- Excellent wear resistance
- Service temperature from -40 °C to +120 °C

Features

- Basic grades available in a wide range of Shore hardness D ratings (25 to 77)
- Heat-stabilised grades (HS types)
- Glass fibre reinforced grades
- Grades with halogen-free flame-retardant system (XFR grades)
- Carbon black concentrates for blackening
- UV concentrate for improved weathering resistance

PIBIFLEX® (TPC-ET)

Properties

- Thermoplastic copolyester elastomer
- Service temperature from -45 °C to 150 °C
- Chemical resistance to various substances, oils and solvents
- Good low-temperature flexibility
- Recyclable

Features

- Hardness ratings from 25 to 70 Shore D
- Injection moulding grades
- Extrusion grades

FORPRENE® (TPV)

Properties

- Cross-linked PP+EPDM
- Service temperature from -40 °C to 130 °C
- Very good mechanical properties
- Excellent UV, ozone and weather resistance
- Highly abrasion resistance
- Excellent resistance to bases, alcohols and acids
- Recyclable

Features

- Hardness ratings from 20 Shore A to 60 Shore D
- Injection moulding grades
- Flame-retardant grades (UL 94 V0)
- Extrusion grades

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® T (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/cm³
- Recyclable

Features

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

Products and Partners



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 grades

CLARIFOIL® Cellulose Acetate Film (Bio Polymer)

Properties

- Transparent
- Highly durable surface
- Exceptional gloss
- Compostable
- Waterproof
- Water vapour permeable

Features

- Glossy film
- Satin film
- Matt film

BLUERIDGE™ Cellulose Pellets (Bio Polymer)

Properties

- Transparent
- Colorable
- Good temperature behaviour
- Mechanical properties similar to ABS
- Compostable
- Scratch-resistant
- Food approval
- Markable and printable

Features

- BLUERIDGE™ T1XX series
- BLUERIDGE™ T9XX series
- BLUERIDGE™ T5XX series
- BLUERIDGE™ G1XX series



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

Features

- Standard PC, colorless
- Standard PC, UV-stabilised, colorless
- Flame-retardant, UV-stabilised, black or dyed
- Glass fibre reinforced, flame-retardant, UV-stabilised, black or dyed
- Light-diffusing, white
- Flame-retardant, light-diffusing, UV-stabilised, white

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



AF-Color® (Color Masterbatches)

Properties

Custom masterbatches according to customer requirements.
In addition to standard colors, the following effects are possible:

- Two-tone effects
- Luminescence
- Phosphorescence
- Thermochromism
- Photochromism
- Fibre effects
- Marbling

Features

Standard for coloring the following based on grade-compliance:

- PO
- PA
- POM
- PBT, PET
- ABS, SAN, ASA
- PS, SB
- All other engineering polymers

AF-Carbon® (Engineering Carbon Black Masterbatches)

Properties

Engineering carbon black masterbatch based on different pigment types:

- Carbon black
- Lamp black
- Organic blackening
- Nigrosine
- Electrically conductive carbon blacks
- IR-reflecting preparations

Features

Standard for coloring the following based on grade-compliance:

- PO
- PA
- POM
- PBT, PET
- ABS, SAN, ASA
- PS, SB
- All other engineering polymers

AF-Complex® (Additive Masterbatches)

Properties

Customised additive masterbatches according to customer requirements.

The following is a brief selection:

- UV stabilisers
- Static inhibitors
- Lubricants
- Laser additives
- Antioxidants/heat stabilisers
- Endothermic blowing agents
- Further additive combinations available on request

Features

Standard for coloring the following based on grade-compliance:

- PO
- PA
- POM
- PBT, PET
- ABS, SAN, ASA
- PS, SB
- All 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

Products and Partners



MEGOL™ (TPS-SEBS)

Eigenschaften

- 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 colors and custom color settings
- A wide variety of modified product ranges available, such as: MEGOL™ HT, MEGOL™ SV, MEGOL™ grades

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

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
- Food approval grades available (EU 10/2011, FDA)
- Suitable for substitution of PVC

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 colorability

Features

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

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 TPC)

Properties

- Certified according to OK compost INDUSTRIAL (EN 13432)''
- High biomass content and gentle on the environment
- Good low-temperature flexibility
- High thermostability
- Easy processing
- TPC based on renewable raw materials or fossil origin
- Can be colored with biodegradable color masterbatches

Features

- Hardness ratings from 60 Shore A to 78 Shore D
- Food approval grades available (EU 10/2011, FDA)
- 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

APIFIVE™ (EVA Compound)

Properties

- Cross-linked and expandable TPEs, modified with elastomer
- Low density allows lightweight applications (from 0.2 g/cm³)
- For highest optical and haptic demands
- Improved mechanical and physical properties
- Suitable for stripping 2-component polyurethane
- Excellent machinability
- Improved mechanical and physical properties

Features

- Good colorability, wide range of colors possible
- For the production of foamed, soft plastic components
- High surface appeal and haptics
- Typical application: shoe soles

APIZERO™ (EVA Compound)

Properties

- Cross-linked and expandable TPEs
- Low density allows lightweight applications (from 0.15 g/cm³)
- For highest aesthetic demands
- Good abrasion resistance
- Resistance to low and high temperatures
- Suitable for stripping 2-component polyurethane

Features

- Injection moulding grades (special process)
- Good colorability, wide range of colors possible
- For the production of foamed, soft plastic components
- Typical application: expandable stoppers and acoustic insulation for vehicle chassis

Products and Partners



APICOLOR™ (Color Concentrates for TPE)

Properties

- Color concentrates for the self-coloring of thermoplastic elastomers

Features

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

APIFLEX™ (PVC Compound)

Properties

- Plasticised polyvinyl chloride (PVC)-based thermoplastics
- Wide range of viscosities
- Good processability
- Free from DEHP (DOP)-based plasticisers and stabilisers containing heavy metals

Features

- Injection moulding grades
- Extrusion grades
- Hardness ratings from 50 Shore A to 95 Shore A
- Food approval grades available (EU 10/2011, FDA)
- Transparent grades
- Kompakte und expandierfähige Typen



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 colorability
- 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
- Flame-retardant grades (UL 94 V0-listed and with high RTI and GWIT)
- Grades for extrusion (also with food approval)

Vydyne® (PA 6)

Properties

- Easy to process
- High strength and stiffness
- Very good impact strength
- Low creep tendency
- Good coloring
- 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
- Flame-retardant grades (UL 94 V0 listed)

HiDura® (PA 6.10, PA 6.12)

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

Features

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

AKROMID® A, B, C (PA 6, PA 6.6, PA 6 Blends, PA 6.6 Blend)

Properties

- High strength and stiffness
- High thermal resistance
- Very good impact strength
- Minimal creep
- Good chemical resistance
- High surface quality
- Easy to process
- Good coloring
- Good tribological properties

Features

- Non-reinforced grades
- Glass fibre reinforced grades up to 60 %
- Glass bead filled grades up to 50 %
- Glass fibre/mineral reinforced grades
- Carbon fibre reinforced grades up to 50 %
- Impact-modified grades
- Hydrolysis-stabilised grades
- High heat-stabilised grades
- Flame-retardant grades (UL 94 V0-listed, free of red phosphorus and halogen)
- Electrically neutral grades
- Laser-transparent grades
- Optimised grades for water and gas injection technology

AKROMID® RM-M (PA 6 Blend)

Properties

- PA 6-based polymer blends
- Reduced moisture absorption compared with PA 6
- Very good mechanical properties in the conditioned state
- Higher dimensional stability

Features

- Glass fibre reinforced grades up to 50 %
- Process-optimised grades
- Compounds with increased chemical resistance

AKROMID® Lite (PA/PP Blend)

Properties

- Lower density vs. PA 6 or PA 6.6
- Lower moisture absorption than PA 6
- Outstanding dimensional stability
- Greater notched impact strength than PA 6
- Hydrolysis resistance
- Good surface quality (product-dependent)

Features

- Compounds based on PA 6 or PA 6.6 with PP
- Non-reinforced grades
- Carbon fibre reinforced grades up to 40 %
- Glass bead filled grades up to 30 %
- Glass fibre/mineral reinforced grades

AKROMID® S (PA 6.10)

Properties

Polyamide 6.10 is a biopolymer based on renewable raw materials (not biodegradable).

Property profile similar to PA 6, but with the following essentials:

- Greatly reduced moisture absorption
- Very good chemical resistance also against hydrolysis
- Very good chemical resistance
- Good tribological properties

Features

- Non-reinforced grades for injection moulding and extrusion
- Glass fibre reinforced grades up to 50 %

Products and Partners



AKROMID® T (PPA)

Properties

High performance polymer: Polyphthalamide for highly mechanical and highly temperature loaded components. Property profile surpasses PA 6.6:

- High mechanical properties
- Low moisture absorption
- Very good chemical resistance
- High heat resistance
- High heat ageing resistance
- Good dimensional stability

Features

- PA 6T or PA 9T based
- Glass fibre reinforced grades up to 50 %
- Carbon fibre reinforced grades up to 50 %
- Process optimised grades
- Grades for food and drinking water applications
- Flame-retardant grades

AKROLOY® PA (PA 6.6 + 6I/6T Blend)

Properties

- Blend of PA 6.6 with partially aromatic CoPA
- High stiffness and strength even after absorbing moisture
- Metal replacement
- Excellent surface finish, even on highly reinforced grades
- Extremely easy to process
- Low moisture absorption
- Very good dimension stable

Features

- Up to 60 % glass fibre reinforced grades for parts under high mechanical stress
- Mineral-filled grades up to 40 %
- Carbon fibre reinforced grades up to 50 %

AKROLOY® PARA (Polyarylamide)

Properties

- High stiffness and resilience
- High creep resistance
- Very easy flowing and easy to process
- Very low warpage
- Class A surface despite high filler content
- Lower moisture absorption than AKROLOY® PA

Features

- Reinforced and non-reinforced grades
- Carbon fibre reinforced grades up to 50 %
- Flame-retardant grades
- Long glass fibre reinforced grades

AKROTEK® PK (Aliphatic Polyketone)

Properties

- Good tribological properties
- Good resilience
- Extremely good chemical resistance
- Shorter cycle times
- Reduced moisture absorption

Features

- Non-reinforced grades
- Glass fibre reinforced grades up to 60 %
- Carbon fibre reinforced grades
- Tribologically modified grades
- Laser-transparent grades
- Grades for drinking water applications

AKROTEK® PEEK (Polyetheretherketone)

Properties

- Extremely high heat resistance
- Excellent mechanical properties
- High fatigue resistance
- Outstanding chemical resistance
- Low creep, even at elevated temperatures
- Low abrasion tendency
- Low smoke gas density
- Inherently flame-retardant
- High resistance to gamma radiation (sterilisation)

Features

- Customer-specific compounds
- Glass fibre reinforced grades up to 60 %
- Carbon fibre reinforced grades up to 50 %
- Tribological modified grades
- Different viscosities for all processing technologies
- Micro granulate

AKROMID® FR, AKROLOY® FR (Flame-retardant Compounds)

Properties

- Halogen-free flame-retardant agent
- Low corrosion
- Suitable for bright colors
- Free of red phosphorus, bromine and iodine as well as antimony

Features

- Compounds based on PA 6; PA 6.6; PA 6.6/6 Blends; PA 6.6 + 6I/6T; PPA, PARA
- Non-reinforced and glass-fibre reinforced grades up to 40 %
- UL 94 V0-listed grades
- Electrically neutral grades
- Grades for Public Transport
- Flame-retardant grades

AKROMID® ICF, AKROLOY® ICF, AKROTEK® ICF (Carbon Fibre Reinforced Compounds)

Properties

- Good tribological properties (low-wear)
- Good electrical conductivity
- Good thermal conductivity
- Excellent stiffness and flexural stiffness
- Low linear thermal expansion
- Excellent price/performance ratio

Features

- Compounds based on PA 6; PA 6.6; PA 6.6/6 Blends; PA 6.6 + 6I/6T; PPA, PARA, PK
- Carbon fibre reinforced compounds up to 40 %
- Highly heat-stabilised grades
XTC = Long-term heat stabilisation for continuous use temperatures more than +200 °C
- Gas injection technique optimised grades

AKROLEN® PP (Special PP Compounds)

Properties

- Blend and hybrid systems

Features

- Customer-specific compounds

PRECITE® (PBT, PET and Blends)

Properties

- Extremely chemical resistance
- Excellent ratio of strength to elongation at break
- Good mechanical properties
- Low creep
- Good chemical resistance
- Good tribological properties
- Schnelles Kristallisationsverhalten

Features

- Glass fibre reinforced grades up to 50 %
- Carbon fibre reinforced grades
- Impact-modified grades
- Hydrolysis-stabilised grades
- Low distortion grades

Products and Partners



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
- Excellent paintability

Features

- Automotive grades
- UV-stabilised grades
- Emission-reduced grades
- Types with stick-slip effect (anti squeak)
- Electroplating grades
- Antistatic grades
- Colored versions according to RAL, OEM colors etc.
- Colored versions with less gloss
- White colored 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 = 120 °C and 130 °C
- Standard black
- Colored versions according to RAL, OEM colors etc.



M·VERA® A, B, BR, GP (Series) (Biodegradable and/or Biobased Compounds)

Properties

- Easy processable on conventional equipment
- Supplied ready for use
- Good printability and weldability
- Easy coloring with AF-Eco® masterbatches possible

Features

- For a wide range of applications and processing technologies
- With various certificates for biodegradability
- Based on different contents of renewable raw materials and/or biobased carbon

AF-Eco® (Biodegradable and/or Biobased Masterbatches)

Properties

- Excellent dispersion
- Color masterbatches certified according to OK compost INDUSTRIAL (EN 13432)
- Free from heavy metals and phthalates

Features

- For a wide range of applications and processing technologies
- The standard portfolio already includes numerous colors
- Development of new color masterbatches - tailor-made for your application

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

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The Feddersen Group



K.D. Feddersen Foundation



K.D. Feddersen Holding GmbH



Foreign trade

K.D. Feddersen Ueberseegesellschaft mbH
Hamburg (DE)
Jakarta (ID)
Manila (PH)
New Taipei City (TW)
São Paulo (BR)

K.D.F. Distribution (Shanghai) Co., Ltd.
Shanghai (CN)

K.D. Feddersen Vietnam Co., Ltd.
Ho Chi Minh City (VN)



Plastics distribution

K.D. Feddersen GmbH & Co. KG
Hamburg (DE)
Paris (FR)

K.D. Feddersen Norden AB
Värnamo (SE)
Espoo (FI)

PROTEC Scandinavia AS
Trondheim (NO)

K.D. Feddersen UK Ltd.
Birmingham (GB)

K.D. Feddersen CEE GmbH
Vienna (AT)

K.D.F. Distribution (Shanghai) Co., Ltd.
Shanghai (CN)

K.D. Feddersen Singapore Pte. Ltd.
Singapore (SG)

K.D. Feddersen (Thailand) Co., Ltd.
Bangkok (TH)

K.D. Feddersen Malaysia Sdn. Bhd.
Petaling Jaya (MY)



Plastics production

AKRO-PLASTIC GmbH
Niederzissen (DE)

AF-COLOR
Niederzissen (DE)

BIO-FED
Cologne (DE)

AKRO Engineering Plastics (Suzhou) Co., Ltd.
Wujiang (CN)

AKRO-PLASTIC do Brasil Indústria e Comércio de Polímeros de Desempenho Ltda.
São Paulo (BR)

PolyComp GmbH
Norderstedt (DE)



Mechanical engineering

FEDDEM GmbH & Co. KG
Sinzig (DE)



Engineering services

M.TEC ENGINEERING GmbH
Herzogenrath (DE)



Stainless steel trade

Voß Edelstahlhandel GmbH & Co. KG
Neu Wulmstorf (DE)
Essen (DE)
Stuttgart (DE)
Vienna (AT)

RHB Voß GmbH
Düsseldorf (DE)

Voss Inox France
Lyon (FR)
Nantes (FR)

Voss Stainless UK Ltd.
Birmingham (GB)

Voss Stainless Iberia SL
Barcelona (ES)

Voss Inox Polska Sp. z o.o.
Bydgoszcz (PL)

OOO Voss Metall
Moscow (RU)

Expertise and Quality



The production company within the Feddersen Group is AKRO-PLASTIC GmbH, along with its branches AF-COLOR for masterbatch and BIO-FED for biopolymer. We have comprehensive technical expertise in engineering plastics to draw on and utilize the synergies afforded by this alliance for the benefit of our customers:

- Innovative R&D services
- Development of formulations based on customer specifications, resulting in marketable standard products
- Toll compounding – from small orders to full size service
- Certified to the following standards:
ISO 14001:2015
ISO 14001:2015 IQNet
ISO 50001:2018
ISO 50001:2018 IQNet
IATF 16949:2016
BS OHSAS 18001:2007
BS OHSAS 18001:2007 IQNet
ISO 9001:2015
ISO 9001:2015 IQNet
- Assured materials testing in an accredited test laboratory DIN EN ISO/IEC 17025:2018 (DAkkS-Accreditation)
Attachment to certificate D-PL-14280-01-00



QR link to
laboratory price list
akro-plastic.com/competencies





Contact Us

We look forward to meeting with you!



K.D. Feddersen CEE GmbH
Member of the Feddersen Group

Mariahilferstrasse 103/4/62b · 1060 Vienna · Austria
Phone: +43 1 786140011
office.cee@kdfeddersen.com · www.kdfeddersen.com
www.peoplethinkplastics.com