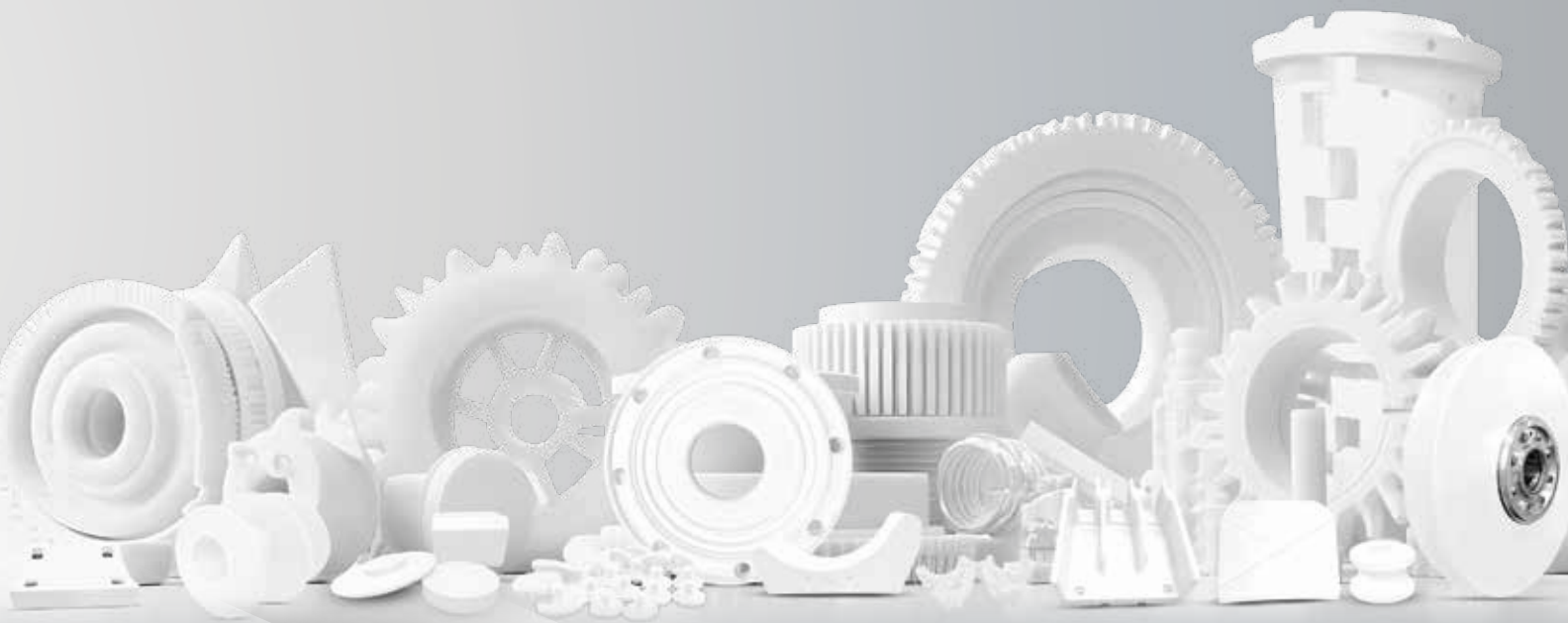


SURLON INDIA

____Your Trusted Partner in High Performance materials





Why Choose Engineering Plastics?

At Surlon India, we design solutions around engineered, high-grade polymers. Every application comes with unique challenges - whether it's high loads, constant wear, exposure to chemicals, or extreme temperatures. Our expertise lies in selecting and shaping the right polymer to meet those exact conditions.

High-Performance Materials

We work with engineering polymers such as Nylons(PA), POM, TPU/PU, PET and UHMWPE and Advance Polymers such as PPS, PUDF, PEEK, PAI etc. along with high-grade composites. These materials are chosen for their specific properties — from high strength-to-weight ratios and low friction to chemical resistance and electrical insulation.

Complete Manufacturing Flexibility

Whether through extrusion, injection moulding, casting or machining shop, we cover the full spectrum of polymer

processing. This allows us to offer solutions ranging from stock shapes for quick supply to fully customised precision parts designed for demanding environments.

Performance You Can Trust

Engineered polymers from Surlon India deliver:

- Superior wear and abrasion resistance
- Dimensional stability under load and temperature variations
- Lightweight alternatives to metals without compromising strength
- Longer service life and lower maintenance costs

From Problem to Solution

Customers come to us with complex challenges. Our in-house R&D, design, and engineering teams translate those challenges into workable, tested, and reliable polymer solutions — helping industries achieve higher performance and efficiency.



Why Choose Engineering Plastics Over Metals?

Engineering Plastics offer significant advantages over traditional metals like steel, Aluminium and bronze. They are lighter, corrosion-free, easier to machine, and provide noise-dampening properties. This makes them the smarter choice for modern, high-performance applications.

Sustainable by Design

Choosing engineering plastics over metals industries gain not only performance advantages but also align with modern sustainability goals.

- Lightweight Energy Saving: Lower fuel consumption in automotive, conveyors, aerospace.
- Longer Life Less Waste: Extended service life reduces replacement frequency.
- Lower Maintenance Self-lubricating properties cut down on oils, greases, and downtime.
- Lower Carbon Footprint Lightweight materials reduce transportation energy and emissions.
- Significant low energy is required to make 1kg of Plastic in comparison with 1kg Metal.

Polymers vs Metals: Key Advantages

PROPERTY	ENGINEERING PLASTICS	METALS (STEEL / BRONZE)
Weight	1/7th of steel - lighter, easier handling	Heavy, increases system weight
Corrosion	Chemically inert, no rust	Rusts, needs coating/maintenance
Machining	Easy to machine, less tool wear	Costly machining, heavy tooling
Noise	Dampening, quiet operation	Noisy in motion, vibration issues



Surlon India Ltd. offers a wide range of engineering plastic stock shapes in rods, sheets, and tubes, crafted with advanced manufacturing technology to global quality standards. Under our ISO 9001-certified system, we ensure precision, reliability, and continuous innovation to meet evolving market needs.

General Engineering Plastics

METALON® Cast Nylon-PA6G

- Metalon® 6PLA [PA6; natural (ivory)/ black/blue]
- Metalon® Oil [PA6+oil; green]
- Metalon® MDS [PA6+MoS₂; grey black]
- Metalon® WFM [PA6+solid lubricant; grey]
- Metalon®MC [Blue][PA6;blue]

METALENE® UHMW-PE

- Metalene® UHMW-PE [natural (white)/black/Green]
- Slide® Tec [UHMW-PE +solid lubricant grey/black]

MetaPOM® Polyacetal - POM

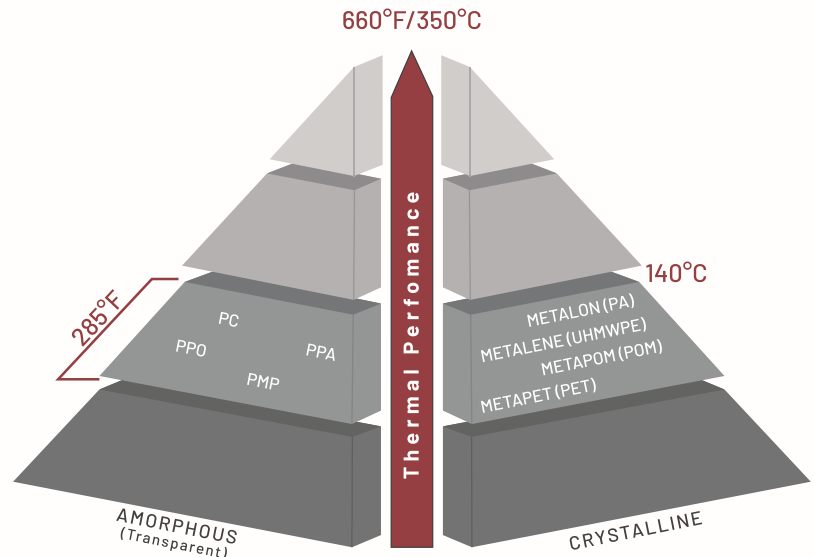
- MetaPOM®-C [POM C;natural (white) /Black]

MetaPET® Polyethelene Terephtalate-PET

- MetaPET® - [PET;natural (white) /Black]
- Meta PET® XL [(PET+solid lubricant) Light Grey]

MetaPUR High-Performance Polyurethane Elastomer

- METAPUR-Polyurethane Elastomer - Cast Polyurethane Elastomer
- METAPUR-TPU - Thermoplastic Polyurethane



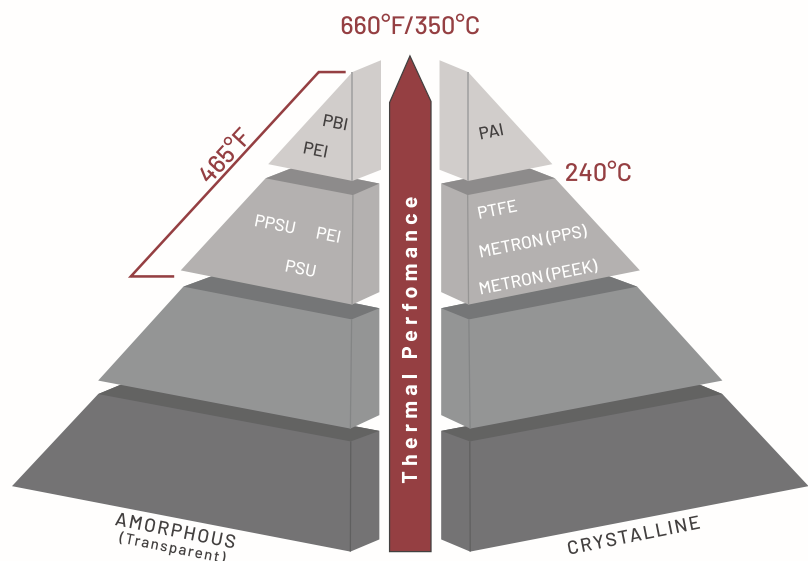
Advanced Engineering Plastics

Metron PEEK [PolyEther Ether Ketone]

- Metron PEEK Natural (Brownish grey/Black)
- Metron XL30PEEK (Black)
- Metron GF30PEEK (beige)
- Metron CA30PEEK (black)

Metron PPS (Polyphenylene Sulfide)

- Metron PPS Nat. (Cream)
- Metron GF40PPS (light brown)



Metalon®

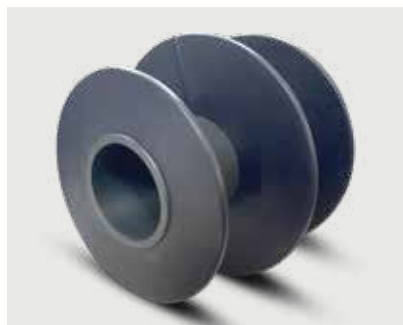
At its core, METALON® is a polymer that is created through the polymerization of caprolactam or other amino acids. This chemical process produces a material that is incredibly strong, durable, and resistant to wear, abrasion, and impact, yet lightweight and easy to use. With its exceptional mechanical properties, METALON® is the material of choice for applications that require high strength, stiffness, and dimensional stability. These properties can be further enhanced by adding proprietary additives.

PROPERTIES & BENEFITS

- Increased component life
- Zero corrosion
- Weight reduction (1/7th weight of steel)
- Improved wear-performance/friction coefficient
- Noise dampening
- Electrical and thermal insulation
- Internal lubrication
- Non-stick characteristics
- Abrasion resistance
- Dimensional stability
- Chemical resistance
- Versatility
- Ease of machining
- Aesthetics
- Self-Lubricating

INDUSTRY USERS

- Petro Chemical
- Aerospace
- Railways
- Ship building
- F&B packaging
- Bottling and canning
- Pharmaceuticals
- Steel mills
- Conveyors
- Power Generation Industries
- Automotive
- Heavy Earthmovers
- Quarrying/Mining
- Cranes



Metalon®6PLA

PA6; Natural (Ivory)/Black/Blue

- **Material** Metalon® 6PLA – Polyamide 6 (PA6)
- **Density** ~1.13–1.15 g/cm³
- **Tensile Strength** High; strong and durable engineering polymer
- **Flexural Modulus** Good; stiff with dimensional stability
- **Impact Resistance** Excellent; tough with good wear resistance
- **Thermal Resistance** Moderate; withstands elevated temperatures
- **Creep Resistance** Good; reliable underload with PV capability
- **Chemical Resistance** Good; resists oils, greases, fuels, many solvents
- **Moisture Absorption** Moderate; dimensional stability largely maintained
- **Special Properties** FDA compliant, low internal stresses, available in multiple

TYPICAL APPLICATIONS

- Rollers, bearings, bushes, washers
- Load supports, seals, wear pads, chain guides
- Cable drums, clamps, bespoke components



Metalon®OIL

PA6+Oil; Green

- **Material** METALON® Oil is cast nylon infused with oil via a unique manufacturing process.
- **Density** ~1.14 g/cm³ (approx.)
- **Tensile Strength** High; durable with extended service life
- **Flexural Modulus** Good; maintains stiffness under load
- **Impact Resistance** Excellent; reduced stick-slip, smoother operation
- **Thermal Resistance** Moderate; stable in demanding conditions
- **Creep Resistance** Improved; long bearing life under load
- **Chemical Resistance** Good; resists oils, greases, and many solvents
- **Moisture Absorption** Moderate; stable with oil infusion
- **Special Properties** Up to 10× wear resistance, 50% lower friction, 5–25× longer bearing life vs. standard nylon/bronze

TYPICAL APPLICATIONS

- Wear pads, rollers, sheaves, pulleys
- Bearings, bushes, gears, spacers
- Support rails, guide plates, brake blocks
- Conveyor rails, pipe clamps, wear strips, custom parts



Metalon®MDS

PA6+MoS₂; Grey Black

- **Material** Metalon® MDS – PA6 + MoS₂
- **Density** ~1.15 g/cm³ (approx.)
- **Tensile Strength** High; improved by MoS₂ reinforcement
- **Flexural Modulus** Good; stable under load
- **Impact Resistance** Good; enhanced wear resistance with dry lubrication
- **Thermal Resistance** Higher; supports elevated operating temperatures
- **Creep Resistance** Very good; strong PV and load-bearing capacity
- **Chemical Resistance** Good; resists oils, greases, many solvents
- **Moisture Absorption** Lower; improved dimensional stability
- **Special Properties** Dry solid lubricant lowers friction, improves wear life and stability

TYPICAL APPLICATIONS

- Cable sheaves, rollers, pulleys
- Bearings, bushings, spacers, liners
- Slide pads, wear pads/plates/strips
- Chain wheels, sprockets, hose clamps



Metalon®WFM

PA6+solid lubricant; Grey

- **Material** Metalon® WFM – PA6 + Solid/Liquid Lubricants
- **Density** ~1.14–1.16 g/cm³ (approx.)
- **Tensile Strength** High; durable with stable mechanical properties
- **Flexural Modulus** Good; excellent dimensional stability
- **Impact Resistance** Good; speed & temperature range
- **Thermal Resistance** Improved; higher operating temperature capability
- **Creep Resistance** Strong PV characteristics; reliable under load
- **Chemical Resistance** Excellent; resists oils, greases, fuels, solvents
- **Moisture Absorption** Reduced; maintains stability in humid conditions
- **Special Properties** Blended solid/liquid lubricants for ultra-low friction, improved stick-slip, consistent wear life

TYPICAL APPLICATIONS

- Wear pads, slide pads, rollers, sliders
- Bearings, gears, winches, stoppers
- Stabilisers, L-pads, bespoke components



Metalon®MC BLUE

PA6;Blue

- **Material** Metalon® MC BLUE – PA6
- **Density** ~1.14 g/cm³ (approx.)
- **Tensile Strength** High; durable with improved mechanical properties
- **Flexural Modulus** Good; strong dimensional stability
- **Impact Resistance** Good; reliable under dynamic loads
- **Thermal Resistance** Enhanced; performs well at higher temperatures
- **Creep Resistance** Good PV and load-bearing capability
- **Chemical Resistance** Excellent; resistant to oils, fuels, solvents
- **Moisture Absorption** Low; stable performance in humid conditions
- **Special Properties** UV stabilized

TYPICAL APPLICATIONS

- Wear rings, gears, rollers, spacers
- Pump & dolly blocks, guides, bush stoppers
- Thruster nozzles, shims, wear pads
- Sheaves, bespoke components

Metalene®

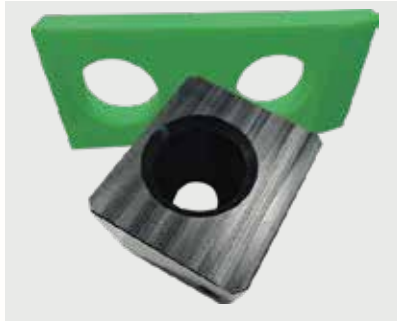
UHMWPE- Ultra-High Molecular Weight Polyethylene is a high-performance thermoplastic with ultra-low friction, exceptional impact strength, and abrasion resistance often outperforming steel. Its self-lubricating nature ensures quiet, low-maintenance operation and long service life. With molecular weights of 3.1–10 million g/mol, its ultra-long, crystalline chains provide superior toughness, durability, and wear resistance in demanding applications.

PROPERTIES & BENEFITS

- **Friction:** Ultra-low, self-lubricating, reduces wear and energy use.
- **Impact Strength:** Highest among thermoplastics; absorbs heavy shocks.
- **Abrasion Resistance:** Exceptional; outperforms metals in sliding wear.
- **Chemical Resistance:** Resists acids, alkalis, and solvents.
- **Moisture Absorption:** Negligible; maintains dimensional stability.
- **Lightweight:** Strong yet light; lowers system weight and costs.
- **Noise Reduction:** Dampens vibrations for quieter operation.

INDUSTRY USERS

- Food Processing Industry
- Material Handling & Bulk Transport
- Machinery & Automation
- Textile & Agriculture
- Packaging & Logistics
- General Engineering
- Construction & Earthmoving
- Mining & Minerals
- Industrial & Utility Services



Metalene®UHMW-PE

Natural (White)/Black/Green

- **Material** Metalene® – (UHMW-PE)
- **Density** ~1.0 g/cm³
- **Tensile Strength** Moderate; high toughness over strength
- **Flexural Modulus** Low; flexible with limited stiffness
- **Impact Resistance** Outstanding; superior even at low temps
- **Thermal Resistance** Moderate; stable in cold, limited at high heat
- **Creep Resistance** Moderate; not ideal for high static loads
- **Chemical Resistance** Excellent; resists most chemicals & solvents
- **Moisture Absorption** Very low; maintains properties in humid/wet use
- **Coefficient of Friction** Ultra-low; self-lubricating, quiet operation
- **Special Properties** Abrasion-resistant, inert, excellent machinability, good dielectric properties (not self-extinguishing)

TYPICAL APPLICATIONS

- Gears, bearings, wear plates, pulleys
- Seals, valves, piston rings, packings
- Conveyor screws, chutes, bumpers
- Filter plates, punching plates, hammer heads



Slide®Tec

Solid lubricant Grey/Black

- **Material** Metalene® Slide®Tec
- **Density** ~1.0 g/cm³
- **Tensile Strength** Moderate; high durability in bulk handling
- **Flexural Modulus** Low; highly tough and flexible
- **Impact Resistance** Excellent; withstands heavy impact, shock, and abrasion
- **Thermal Resistance** Moderate; stable in cold, limited at high temps
- **Creep Resistance** Moderate; performs well under sliding loads
- **Chemical Resistance** Inert; resists corrosion, oils, and most chemicals
- **Moisture Absorption** Negligible; maintains performance in wet use
- **Coefficient of Friction** Ultra-low; self-lubricating, prevents sticking and freezing
- **Special Properties** Non-stick, lightweight alternative to steel/rubber, maintenance-free, long service life

TYPICAL APPLICATIONS

- Truck & hopper liners, silos, conveyors
- Sliding & bulk handling systems
- Mining, construction & earthmoving
- Agriculture & food industry

MetaPOM®

MetaPOM- Polyoxymethylene or Acetal is a versatile engineering plastic with excellent machinability, low moisture absorption, high stiffness, and outstanding mechanical strength and dimensional stability. Its crystalline, highly ordered molecular structure provides high crystallinity, fatigue resistance, and reliable performance for precision components.



- **Material** MetaPOM® – (Acetal, POM C)
- **Density** ~1.41–1.43 g/cm³
- **Tensile Strength** High; excellent strength & rigidity
- **Flexural Modulus** High; very good dimensional stability
- **Impact Resistance** Good; fatigue- and creep-resistant
- **Thermal Resistance** Stable across moderate temperature range
- **Creep Resistance** High resistance to creep under load
- **Chemical Resistance** Excellent; resists fuels, oils, solvents
- **Moisture Absorption** Low; maintains dimensional accuracy
- **Coefficient of Friction** Low; good wear & abrasion resistance
- **Special Properties** Excellent machinability; good electrical insulation

TYPICAL APPLICATIONS

- Gears, bearings, bushings, rollers
- Seals, valve components, insulators
- Automotive & consumer parts
- Medical devices, machinery components

MetaPET®

MetaPet- Polyethylene Terephthalate is a semi-crystalline polyester thermoplastic combining strength, rigidity, dimensional stability, wear resistance, and low friction ideal for durable precision parts and FDA-compliant food contact. Its linear chain structure with strong ester bonds and crystallinity ensures stability, environmental resistance, and excellent barrier properties.



MetaPET® (PET), Natural (White) & Black

- **Material** MetaPET® – Polyethylene Terephthalate (PET)
- **Density** ~1.38 g/cm³
- **Tensile Strength** High strength, stiffness & hardness
- **Flexural Modulus** High; excellent dimensional stability
- **Impact Resistance** Moderate toughness
- **Thermal Resistance** Higher range than acetal/nylon
- **Creep Resistance** Very good under long-term loads
- **Chemical Resistance** Resists solvents, stains; FDA-compliant
- **Moisture Absorption** Very low
- **Coefficient of Friction** Low, consistent; excellent wear resistance
- **Special Properties** Machinable for precision parts; insulating & barrier properties

TYPICAL APPLICATIONS

- Bearings, bushings, washers
- Guides, slideways, gears, rollers
- Pump & precision parts
- Electrical insulators
- Food-contact wear parts



MetaPET®XL

MetaPET® XL (PET + solid lubricant)
light grey

- **Material** MetaPET® XL PET+Solid Lubricant
- **Density** ~1.38 g/cm³
- **Tensile Strength** High; excellent load-bearing strength
- **Flexural Modulus** High; very rigid & dimensionally stable
- **Impact Resistance** Moderate toughness
- **Thermal Resistance** Stable at elevated temperatures; high PV resistance
- **Creep Resistance** Very good under continuous load
- **Chemical Resistance** Resistant to solvents; FDA-compliant
- **Moisture Absorption** Very low; consistent performance in humid conditions
- **Coefficient of Friction** Very low; self-lubricating
- **Special Properties** Superior wear resistance; food-safe; reliable under high pressure × velocity

TYPICAL APPLICATIONS

- Bearings, bushings, washers, guides
- Slideways, gears, rollers, pump parts
- Food processing wear components
- Electrical insulating parts

MetaPUR

Polyurethane Elastomer-TPU and PU are versatile polymers combining elasticity, high impact resistance, and superior abrasion resistance, bridging plastics and rubbers with thermoplastic processability. Both contain urethane linkages, with TPU being thermoplastic -melt-processable and recyclable unlike typical thermoset polyurethanes.

PROPERTIES & BENEFITS

- **Flexibility:** High stretches and bends without permanent deformation.
- **Impact Resistance:** Excellent absorbs energy and protects components.
- **Abrasion Resistance:** Very high withstands wear from friction or constant contact.
- **Chemical Resistance:** Good resists oils, greases, common solvents, hydrolysis, and microbes.
- **Temperature Range:** Moderate to good retains performance across broad temperatures depending on grade.

INDUSTRY USERS

- **Industrial:** Conveyor belts, impact pads, mounts, tooling durable and abrasion resistant.
- **Automotive:** Interior parts, protective films, bushings, cable jacketing durable, vibration-dampening.
- **Sports & Recreation:** Footwear, protective gear, outdoor equipment impact-absorbing, lightweight, weather-resistant.
- **Consumer Goods:** Phone cases, watch bands, tool grips soft-touch, durable, versatile.



MetaPUR

Cast Polyurethane Elastomer

- **Material** MetaPUR – Polyurethane (PU, Thermoset Elastomer)
- **Density** ~1.10–1.25 g/cm³ (grade dependent)
- **Tensile Strength** High; excellent load-bearing strength
- **Flexural Modulus** Low; flexible with good fatigue resistance
- **Impact Resistance** Outstanding
- **Thermal Resistance** Reliable across moderate ranges; UV- and heat-stable options
- **Creep Resistance** Very good; minimal compression set
- **Chemical Resistance** Good; resists oils, greases, solvents; food-grade options available
- **Moisture Absorption** Low; stable in humid/wet environments
- **Special Properties** Exceptional wear & abrasion resistance; FDA-safe, UV-stable, subsea grades

TYPICAL APPLICATIONS

- Bushings, bearings, gears, couplings
- Belts, wheels, rollers, casters, pulleys
- Chute liners, seals, scraper blades
- Suspension & vibration isolators
- Pads, bump stops, shock absorbers
- Industrial & subsea seals, gaskets, linings
- FDA-safe wear parts & machined components



METAPUR

TPU-Thermoplastic Polyurethane

- **Material** – Metapur – Thermoplastic Polyurethane (TPU)
- **Density** ~1.10–1.25 g/cm³ (grade dependent)
- **Tensile Strength** High; durable with strong elasticity
- **Flexural Modulus** Low; highly flexible
- **Impact Resistance** Excellent
- **Thermal Resistance** Moderate—good; retains flexibility across wide and low temperatures
- **Creep Resistance** Good; elastic recovery under load
- **Chemical Resistance** Strong resistance to oils, greases, fuels, solvents, hydrolysis, and microbes
- **Moisture Absorption** Low; stable in humid environments
- **Special Properties** Reprocessable, recyclable (thermoplastic); transparent grades available

TYPICAL APPLICATIONS

- Automotive: seals, gaskets, bushings, vibration dampers
- Industrial: hoses, belts, wheels, wear strips
- Footwear: soles, cushioning parts
- Consumer goods: protective cases, sporting goods
- Medical: tubing, flexible components (biocompatible grades)

Metron PEEK

METRON PEEK- Polyether Ether Ketone is a high-performance semi-crystalline thermoplastic known for its exceptional strength, thermal stability, and chemical resistance. Its robust aromatic structure with stable ether and ketone linkages ensures outstanding mechanical performance, creep and fatigue resistance, and makes it a lightweight, durable alternative to metals in demanding environments where reliability and longevity are critical.

PROPERTIES & BENEFITS

- **High temperature performance** – Continuous use up to 260°C, Short term excursion up to 300°C
- **High wear resistance** – Low friction, excellent abrasion and cut-through resistance
- **Mechanical strength & stability** – Very High stiffness, creep and fatigue resistance
- **Chemical resistance** – Withstands acids, bases, solvents, and hydrolysis
- **Electrical integrity** – Stable insulating, conductive, and dissipative properties
- **High purity & bio-inert** – Radiation resistant, X-ray transparent
- **Wear Resistance:** Low friction, often no lubrication needed.
- **FDA/Medical Grades:** Biocompatible, pure, sterilization resistant.
- **Hydrolysis Resistance:** Withstands hot water and steam at high temp/pressure.
- **FST Properties:** Low flammability, smoke, and toxicity for aerospace /transport. Self-extinguishing up to 600°C

INDUSTRY USERS

- Aerospace & Defense
- Automotive & Transportation
- Medical & Healthcare
- Oil, Gas & Energy
- Electronics & Semiconductors
- Industrial Machinery
- Food Processing



Metron PEEK Natural

Brownish Grey/Black

- **Material** – Unreinforced Polyetheretherketone (PEEK)
- **Structure** – Semi-crystalline
- **Form** – Granules for injection moulding and extrusion
- **Flow** – Standard flow
- **Colour:** Natural (brownish grey)
- **Strength/Stiffness** – High
- **Ductility** – High
- **Chemical Resistance** – Excellent, even in aggressive environments
- **Sterilization** – Suitable for steam sterilization

TYPICAL APPLICATIONS

- Medical devices & surgical instruments
- Aerospace brackets, clips, cable insulation
- Automotive seals, gaskets, thrust washers
- Electrical/electronic connectors, insulators
- Industrial pump parts, valve seats
- Oil & gas seals, back-up rings, downhole connectors
- Semiconductor wafer handling & insulation parts



Metron XL30PEEK

Black

- **Material** – Metron XL30, high-performance thermoplastic
- **Reinforcement** – 30% carbon fiber, graphite, and PTFE
- **Structure** – Semi-crystalline
- **Form** – Injection moulded components, extruded rods & plates
- **Colour** – Black
- **Strength** – High, enhanced by carbon fiber
- **Wear Resistance:** Excellent
- **Friction** – Very low coefficient of friction (graphite & PTFE)
- **Thermal Expansion** – Low
- **Chemical Resistance** – Excellent, even in aggressive environments

TYPICAL APPLICATIONS

- Tribological applications with very low friction
- Bearings, gears, seals, thrust washers
- Sliding and rotating parts in automotive & aerospace
- Pump and compressor wear components
- Heavy-duty industrial machinery parts
- Applications needing low wear + chemical resistance



Metron GF30PEEK

Beige

- **Material** – 30% Glass fiber reinforced Polyether Ether Ketone (PEEK)
- **Type** – High-performance, semi-crystalline thermoplastic
- **Form** – Injection moulded components, extruded shapes
- **Strength/Durability** – Exceptional, with enhanced mechanical properties
- **Thermal Expansion** – Low coefficient of thermal expansion
- **Chemical Resistance** – Excellent, even in aggressive environments
- **Sterilization** – Suitable for steam sterilization

TYPICAL APPLICATIONS

- Structural parts requiring higher stiffness
- Automotive housings, under-the-hood parts
- Food processing & sterilizable machine components
- Pump housings and compressor parts
- Electrical insulation components under load
- Industrial equipment needing low thermal expansion



Metron CA30PEEK

Black

- **Material** – 30% Carbon fiber reinforced Polyether Ether Ketone (PEEK)
- **Type** – High-performance, semi-crystalline thermoplastic
- **Flow** – Low flow grade
- **Form** – Injection moulded components and extruded shapes
- **Strength & Stiffness** – Exceptional in both static and dynamic systems
- **Wear Resistance** – Excellent
- **Coefficient of Friction** – Low
- **Thermal Expansion**: Low coefficient of thermal expansion
- **Chemical Resistance** – Excellent, even in aggressive environments

TYPICAL APPLICATIONS

- Aerospace structural and interior parts
- Automotive drivetrain & engine bay components
- High-load bearings, bushings, and wear rings
- Precision components needing low thermal expansion
- Oil & gas exploration tools and seals
- Robotics and industrial machinery components

Metron PPS

Polyphenylene sulfide is a semi-crystalline, high-performance thermoplastic combining high-temperature resistance, chemical inertness, inherent flame retardancy, and excellent electrical insulation. Its aromatic rings linked by sulfur atoms form a flexible, robust backbone, providing thermal stability, chemical resistance, and reliable mechanical and electrical performance across demanding applications and harsh environments.

PROPERTIES & BENEFITS

- **Thermal Stability:** High; continuous use up to 200°C, maintains structural integrity.
- **Chemical Resistance:** Excellent; resists acids, alkalis, and solvents.
- **Electrical Insulation:** Outstanding; high dielectric strength, stable under heat/humidity.
- **Dimensional Stability:** Very good; minimal creep, retains precision under load/temperature.
- **Mechanical Strength:** Good; stiff and strong, reinforced with glass fibers if needed.
- **Flame Retardancy:** Inherent; UL94 V-0 rating, no additives required.

TYPICAL APPLICATIONS

- **Automotive:** Engine & transmission parts; heat & chemical resistant.
- **Electronics:** Connectors, switches; insulation & flame retardant.
- **Industrial:** Pumps, valves, machine parts; durable & high-temp resistant.
- **Chemical Processing:** Pipes, fittings, coatings; corrosion resistant.
- **Medical:** Devices needing sterilization & chemical resistance.
- **Aerospace:** Non-structural parts; lightweight, flame retardant.



- **Material** – Unfilled Polyphenylene Sulfide (PPS Natural – Cream)
- **Density** ~1.35 g/cm³ (lighter than filled grades)
- **Tensile strength** Lower than reinforced PPS; higher elongation and toughness
- **Flexural modulus** Lower stiffness; better ductility and impact strength
- **Impact resistance** - Higher than filled PPS; moderate toughness
- **Thermal resistance** - Continuous use ~220–240 °C; melting point ~280–290 °C
- **Creep resistance** - Moderate; suitable for light load applications
- **Chemical resistance** - Outstanding; virtually insoluble below 200 °C
- **Moisture absorption** Extremely low (<0.05%); excellent dimensional stability
- Excellent dielectric strength; ideal for high-purity applications

TYPICAL APPLICATIONS

- **Electrical:** insulators, connectors, coil formers
- **Semiconductor/Chemical:** valves, pump parts, wafer handling
- **Appliances:** heater housings, FDA-grade food contact parts
- **Medical/Lab:** fluid manifolds, solvent-resistant components



Metron GF40PPS

light brown

- **Material** – 40% Glass Fiber Reinforced Polyphenylene Sulfide (PPS GF40)
- **Density** ~1.65–1.70 g/cm³ (heavier than unfilled PPS).
- **Tensile strength** ~170–230 MPa (vs. ~85 MPa unfilled).
- **Flexural modulus** ~12–18 GPa (very high stiffness).
- **Impact resistance** - Lower than unfilled PPS due to brittleness.
- **Thermal resistance** - Continuous use ~220–240 °C melting point ~280–290 °C. High heat deflection temperature (>260 °C).
- **Creep resistance** - Excellent, even under load at high temperatures.
- **Chemical resistance** - Very good; maintains PPS resistance profile.
- **Moisture absorption** Very low (<0.05%), dimensional stability excellent.

TYPICAL APPLICATIONS

- **Automotive:** connectors, pump parts, thermostat & turbocharger housings
- **Electrical:** high-temp connectors, relays, circuit breakers
- **Industrial:** impellers, valve parts, chemical-resistant housings
- **Metal replacement:** high-stiffness structural components

SURLON INDIA



Contact Us



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SURLON GROUP



SURLON INDIA



BROCHURES

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