

Product Focus

KEPITAL™ POM

High-performance engineering
plastics for precision applications



KPAC
Engineering Plastics

OMYA Omya Performance
Polymer Distribution
DISTRUPOL

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High-performance acetal for demanding precision applications

KEPITAL™ POM is a high-performance polyoxymethylene (POM, acetal) engineering plastic from Korea Polyacetal (KPAC) which is designed to deliver outstanding mechanical strength, dimensional stability, and low friction properties across a wide range of precision applications.

Combining high stiffness with excellent wear resistance and low moisture absorption, KEPITAL™ POM enables reliable performance in demanding environments where tight tolerances and long-term durability are critical.

Available through Omya Performance Polymer Distribution, including Distrupol, customers across Europe have access to the KEPITAL™ POM portfolio supported by grade selection expertise and local technical application support.

Key benefits

Material performance	Value for customers
High stiffness and strength	Reliable structural performance under load
Excellent dimensional stability	Maintains tight tolerances over time and temperature
Low friction and wear resistance	Ideal for moving and sliding components
Good chemical resistance	Suitable for automotive, industrial, and consumer applications
Low moisture absorption	Consistent performance in humid conditions
High fatigue endurance	Long service life under repetitive stress
Broad grade portfolio (copolymer and homopolymer)	Optimized material selection for specific applications
Excellent processing behavior	Efficient injection molding and extrusion

Where KEPITAL™ POM performs

KEPITAL™ POM is widely used in applications where precision, durability, and low friction are essential:

- **Automotive systems** – fuel system components, clips, housings, seat mechanisms, gear components
- **Electrical & electronics** – connectors, switches, housings requiring dimensional stability and insulation
- **Industrial & mechanical components** – gears, bearings, rollers, conveyor parts
- **Consumer goods** – zippers, fasteners, appliance components
- **Fluid handling systems** – valves, pump parts, fittings
- **Medical devices & healthcare components** – precision components such as instrument parts, pump components, and drug delivery devices supported by compliant material grades
- **Precision engineering parts** – sliding components and assemblies requiring tight tolerances

Material technologies overview

Material type	Key characteristics	Typical applications
KEPITAL™ copolymer (POM-C)	Superior chemical resistance, enhanced thermal stability, excellent fatigue and wear resistance	Automotive fuel systems, fluid handling, industrial components
KEPITAL™ homopolymer (POM-H)	Higher stiffness, strength, and fatigue resistance with excellent mechanical performance	Gears, structural parts, precision engineering components
Specialty/modified grades	Tailored performance (wear, impact, conductivity, reinforcement)	Application-specific engineering solutions

Portfolio overview

KEPITAL™ POM grade family	Design focus	Typical use cases
Standard/unfilled grades	Balanced mechanical performance (wide viscosity range)	Injection molded precision parts
Homopolymer (POM-H)	Maximum stiffness, strength, and fatigue resistance	Gears, structural components
Copolymer (POM-C)	Chemical resistance and long-term stability	Automotive fuel systems, fluid handling
Reinforced grades (GF, mineral)	Increased stiffness, strength, and heat resistance	Structural / load-bearing parts
Wear & friction modified grades	Low friction, extended lifetime	Bearings, gears, moving assemblies
Impact modified grades	Improved toughness	Durable consumer and industrial parts
Conductive/anti-static grades	Electrical functionality	E&E and industrial applications
Low emission/specialty grades	Reduced VOCs, automotive compliance	Interior automotive applications
Medical/compliance grades	Biocompatibility and regulatory compliance	Medical devices and healthcare components

Precision performance

KEPITAL™ POM delivers a combination of key performance attributes required for precision engineering components:

Property	Performance characteristics
Mechanical	High stiffness, strength, and fatigue resistance with excellent load-bearing capability and long-term creep resistance
Wear	Low coefficient of friction, excellent sliding behavior, and strong abrasion resistance for moving and contact components
Dimensional	Excellent dimensional stability with low thermal expansion and minimal moisture absorption (~0.2%), ensuring tight tolerances over time
Thermal	Reliable performance across a wide temperature range with good heat resistance and consistent properties under thermal load
Chemical	Resistant to fuels, oils, solvents, and many industrial chemicals, with enhanced stability against alkalis (particularly POM-C)
Environmental	Low moisture uptake ensures consistent mechanical performance in humid conditions and supports long-term durability
Electrical	Good insulation properties and dielectric performance for electrical and electronic components

Processing versatility

KEPITAL™ POM supports a wide range of processing technologies:

- Injection molding
- Extrusion (profiles, rods, sheets)
- Precision molding for tight-tolerance components

Offering consistent flow behavior and thermal stability, KEPITAL™ POM enables high-quality, repeatable manufacturing for complex parts.

Sustainability and compliance

KEPITAL™ POM can contribute to a more sustainable product design through:

- Long product lifetime which reduces material replacement
- Efficient processing for reduced waste and energy consumption
- Availability of grades compliant with key regulations (e.g., food contact, automotive standards)
- Support for lightweighting and material efficiency in engineering design

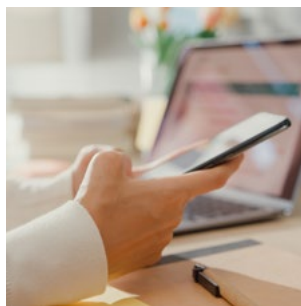


Omya Performance Polymer Distribution – value for customers

Working with Omya Performance Polymer Distribution gives customers access to:

- Local technical and application support across Europe
- Multi-material expertise and material selection guidance
- Application development and processing optimization
- Regulatory and compliance support
- Reliable and flexible supply chain

In North Europe, additional support for KEPITAL™ POM is provided through Distrupol, as part of the OPP distribution network.



Let's develop your next application together

KEPITAL™ POM enables manufacturers to design precision components that deliver durability, reliability, and cost-efficient performance.

Contact Omya Performance Polymer Distribution to discuss your application, material selection or performance requirements.



distrupol.com

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