



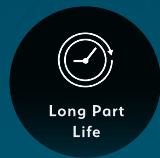
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# Duvelco

## Specialist Polyimide Polymers

Solutions for Critical and Demanding Applications



Long Part Life



Low Friction



Excellent Sealing

Delivering exceptional wear resistance, long part life and high durability parts into harsh conditions, high-pressure systems and high PV environments in the automotive industry.



# DUCOYA<sup>®</sup>

## IN AUTOMOTIVE

# DUCOYA®



## G001

100% unfilled PMDA-ODA polyimide, specially formulated for balanced properties, static sealing and the highest physical strength.



## G021

PMDA-ODA polyimide with 15% graphite encapsulated into the polymer. This combination is optimised for low wear and low friction tribological applications.



## G022

PMDA-ODA polyimide with 40% graphite encapsulated into the polymer. Optimised for low thermal expansion and good thermal oxidative stability, combined with excellent wear and friction behaviour.

## Specialist Polyimide Polymers

Ducoya provides a range of solutions, from polymer resin to shapes and moulded parts designed to survive in arduous conditions, such as self-lubricating thrust washers found in e-axes, high-pressure dynamic hydraulic seals, and high-performance bushes and bearing cages.

Ducoya exhibits low friction and high wear resistance even in demanding PV conditions of up to 14MPa.m/s unlubricated or 54MPa.m/s in mixed lubrication conditions. Additionally, Ducoya has excellent damping, minimising Noise Vibration and Harshness (NVH) while having high enough modulus and low friction to minimise parasitic losses.

Ducoya is relatively low density, allowing weight savings, and is high temperature capable of up to 400°C in a suitable chemical environment, exceeding the upper thermal limit of most lubricants.

The material also delivers exceptional elongation, which helps sealing, as well as toughness and impact resistance unmatched by alternative polyimides, including the market leader.

Ducoya is an excellent electrical insulator with soft but strong characteristics.

Ducoya can be machined from small basic shapes for prototypes. Prototypes made following Ducoya's design and machining guide will have the same properties as the high volume moulded parts.

PFAS is not added to or involved in the manufacture of Ducoya. The material is compatible with all tested modern refrigerants, such as HFOs and R744 (supercritical carbon dioxide).

Lastly, Ducoya is non-flammable in air, as can be confirmed by UL 94 V-0 and 5VA testing.

### eAXLE

- Plain and spherical thrust washers

### BATTERY

- Cell seals and thermal runaway protection
- High power connectors

### POWERTRAIN

- Automatic transmission
- Continuously Variable Transmission
- Engine
- Turbochargers
- Exhaust gas recirculation
- Air conditioning

### ELECTRIC MOTORS

- Thrust plugs

### CHASSIS

- Brake pad wear sensors
- Dry running vacuum pumps
- ABS control valves
- Steering and suspension



Unlock Excellence  
**Ducoya by Duvelco**  
 Redefining standards in  
 polyimide technology



Discover more about Ducoya

duvelco.com  
 info@duvelco.com



Discover the pinnacle of polymer technology with our flagship product range, **Ducoya G series**. Meticulously researched, developed, and crafted to excel in high-performance, critical applications, Ducoya sets new industry standards.

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