

# Polyoxada: Heat Resistant Aramid Fabric

**PolyOxada** is a poly-oxadiazole fiber, like aramid fiber. It has very unique properties.

## Properties

### Heat resistance

- **Long-term use** (up to 3 years) at high temperature **up to 250°C**.
- Short-term heat shock up to 400°C.
- Thermal destruction begins at 500°C.
- **It does not melt**. It withstands the exposure of open fire, in inert media the material become carbonized.

Oxygen index LOI for virgin fiber is 30% minimum. **PolyOxada** fabrics **cannot be burned** with overheated (600-700°C) sparkles. The fiber is applicable at cryogenic conditions as well.

### High breaking strength and other properties

- Average load at brake of the filament is
- 45cN/tex at 20°C and
- 27 cN/tex at 200°C.
- Break elongation is 10-15%. Load at elongation (LASE) 5% is in the range 31-41 N.
- The filament is very stable to withstand cyclic and static load.
- High adhesion to rubber.

### Chemical resistance

Fiber has high resistance to organic solvents and acids. It is stable to diluted inorganic acids and alkalis.

### Natural humidity

Humidity level of **PolyOxada** compares to viscose and cotton level (10-11%).

### Low shrinkage

Linear shrinkage at high temperatures (up to 400°C) is max 0,5%, that is significantly better versus other types of heat resistant fibers with high level of shrinkage.

### Unique frictional Properties

Fiber has very low friction coefficient to the metal surface (below 0.2). This property is a key to successful using of in composite industry.

The material is wear resistant and not abrasive.

### High electrical resistance

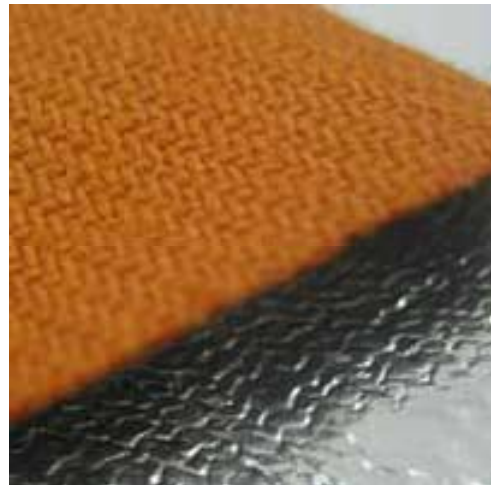
Above  $10^{14}$  Ohm • mm<sup>2</sup> / m.

## Product and Application

**PolyOxada** is used around the world for manufacturing of heat resistant bag-filters, protective apparel and accessories, plastic composites, braided packings, friction materials, reinforcement of rubber goods etc.



PolyOxada



Metalized fabric



2mm PolyOxada



Milled PolyOxada

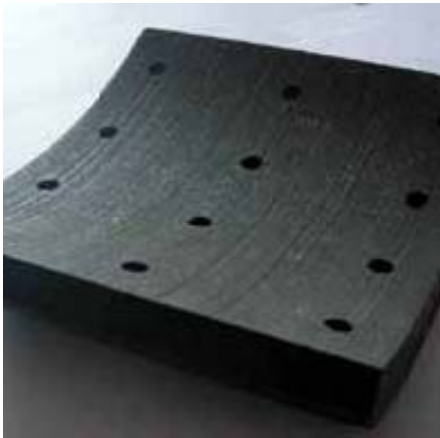
For more info contact: [info@polymertec.com](mailto:info@polymertec.com)



Glove made from felt



Filter bag



Frictional Pad



Protective Suit



Welder Suit

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