



**ZEDEX®**  
Tribological Polymer Solutions

HIGH PERFORMANCE PLASTICS

# ZX-200

FOR

# TECHNICAL COMPONENTS

IN THE FIELD OF OIL, MINING, MARINE AND MORE.



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**MORE INFORMATION TO  
NACE TM0185  
BELOW.\***

# AN ALLROUNDER REDISCO

When many factors, such as wear resistance, resilience, chemical resistance play an important role, ZX-200 is the right allrounder for moving applications. With its properties, ZX-200 is particularly suitable in the field of hydraulic applications, but also far beyond.

## EQUIPPED AGAINST MANY ODDS

ZX-200 is a compound based on PK (poly ketone) and as PEEK (poly ether ether ketone), belongs to the group of polyketones. ZX-200 is comparable to PPS in its resistance to media & hydrolysis and for common chemicals is comparable to PEEK. Thanks to its outstanding ratio of tensile strength to yield elongation and a higher continuous use temperature can be defined as a better acetal (POM).

ZX-200 enables durable solutions for those component that require to be elastically deformed under load e.g. for seals & track rollers but also for other machine components as gears & bushings. The fact that ZX-200 also does

not plastically deform under load and excels in spontaneous elasticity with highly dynamic recovery, underlines main property of this allrounder material.

Most mining applications are surrounded by abrasive particles and rough surfaces that put components under severe stress. Chemical fluids, as well as pressure, temperature and moisture absorption from water, for example, also complicate the work of the application. ZX-200 is able to cope with these demands.

A trial of a 1m high and 1m diameter (1 m = 3.28 ft) bushing of ZX-200 is scheduled. The goal is to replace thermoset materials in

marine applications to avoid moisture absorption problems, extend service life, and save money at the same time.

### ZX-200 is available as:

- **Rod**
- **Plate**
- **Hollow-rod**
- **3D-filament**

\* Tool-free individual production of blanks up to 1m in diameter and 1m in height. Dimensions can be extended on request.

\* A compound grade has been already tested according to **NACE TM0185**. This grade is currently used as pipe liner. The possibility of testing another compound grade according to Norsok M710 is currently being considered.



# COVERED

## CHEMICAL RESISTANCE

	ZX-200	PA66	PA12	POM	PBT	PPS
<b>hydrocarbons</b>						
aliphatic	+	+	+	+	+	+
aromatic	+	+	+	+	+	+
halogenated	+	+	●	+	●	+
<b>ketones</b>	+	+	+	+	+	+
<b>ether</b>	+	+	+	+	+	+
<b>Aldehyde</b>	+	●	●	+	+	+
<b>aldehydes</b>						
water	+	●	+	+	●	+
weak acids	+	●	●	●	●	+
weak bases	+	●	●	+	●	+
strong acids	●	●	●	●	●	●
strong bases	●	●	●	+	●	●

● not resistant

+ resistant

## ADVANTAGES AT A GLANCE

- Low density
- Cost effective
- Good mechanical properties
- High dynamic load capacity
- Versatile use
- High resilience
- Low creep
- High mechanical damping
- Environmentally friendly
- Good tribological properties
- Extremely resistant to abrasion
- High chemical resistance
- Very good hydrolysis resistance
- Gamma and steam sterilizable



## APPLICATIONS/ ADVANTAGES

- Track rollers (low slippage, flattening & wear, easy to tight-fit, can be injection moulded)
- gears (transmittable power higher than POM-C / POM-C, PA6.6 / PA6.6)
- Seals (high bearing capacity, flexible, low compression set)
- Vessel (low permeability, barrier layers not required)
- Pump parts (high bearing capacity, abrasion resistance between POM-C and PA6.6)
- Plain bearing bushes, especially with lubrication, with water lubrication
- Low transition speed
- Filter elements (high bearing capacity, wide operating temperature range)
- Components with snap-fit (high strains with outstanding resilience)

Product properties	PA11 & 12	PA6 & 6.6	POM	PBT
rigidity				
temperature/modulus				
ductility				
dimension stability				
chemical resistance				
abrasion/ wear resistance				

ZX-200:      better      equivalent      worse



## USED SUCCESSFULLY AS - TRACK ROLLERS FOR ROLLER COASTERS



## FIELDS OF APPLICATION

- Agriculture and Construction Machinery
- Chemical Industry
- Crane and Bridge Construction
- Food Industry
- Oil & Gas Industry
- Shipbuilding, Port Industry and Offshore
- Mining

