

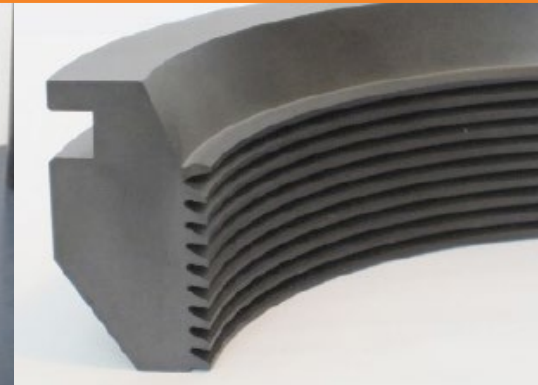
# FIXED TOOTH POLYMER LABYRINTH SEALS



Bent Aluminum Teeth



Chemical Corrosion on  
Aluminum Seal



Quadrant Ketron® PEEK Polymer  
Labyrinth Seal

## Do you want to improve compressor seal efficiency?

Quadrant's family of Duratron® and Ketron® PEEK Materials can tighten compressor seal clearances. The rub tolerant design can prevent tooth profile deformation increasing performance and Mean Time Between Repairs. Quadrant's materials also have excellent chemical corrosion properties over common industry standard aluminum seals.

### Trends In Turbo Compressor Market

- Higher temperature at increased loads
- Improved efficiency and reliability in compressor seals
- Reduced chemical corrosion
- Increased service life of seals
- Cost effective solutions, ease to manufacture

### Key Benefits

- Increased compressor efficiency
- Increased design capabilities
- Reduced downtime
- Lower cost in service
- **NEW** NORSOK M-710 (sour gas aging) compliance for Ketron® PEEK stock shapes

### Quadrant Answers

- Quadrant Duratron® with continuous service temperatures up to 500°F / 260°C
- Quadrant Ketron® PEEK with continuous service temperatures up to 480°F / 248°C
- Self lubricated materials for rub tolerant seals, flexing not bending
- High resistance to fuels, lubricants and chemicals
- Better physical properties than conventional aluminum seals
- Near net shapes, machining and molded parts

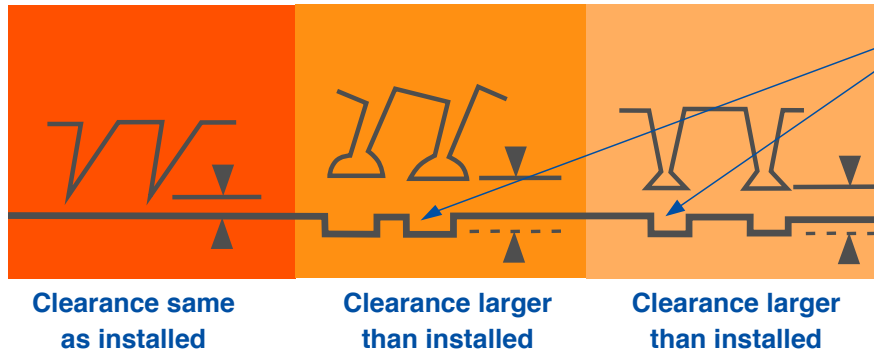
### Common Applications

- Fixed Tooth Polymer Labyrinth Seals



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## Rub Tolerant Seal Design and Performance



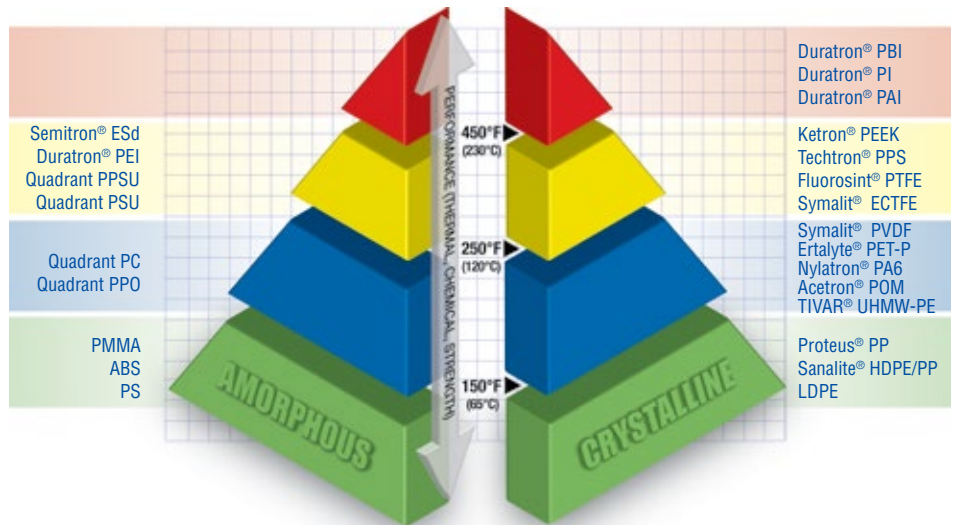
Note the galling of the shaft

### Typical Labyrinth Tooth Designs After Critical Speeds

After exposure to critical speed the thermoplastic tooth will return to original shape due to the plastic “memory” of the engineering thermoplastic while the aluminum tooth remains damaged

## Performance Advantages Start Here!

Explore the industry’s broadest family of engineering plastic products, Online! The perfect match for your application, environment and performance level is just a few clicks away.



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