



## TruTech™ P1110 Material

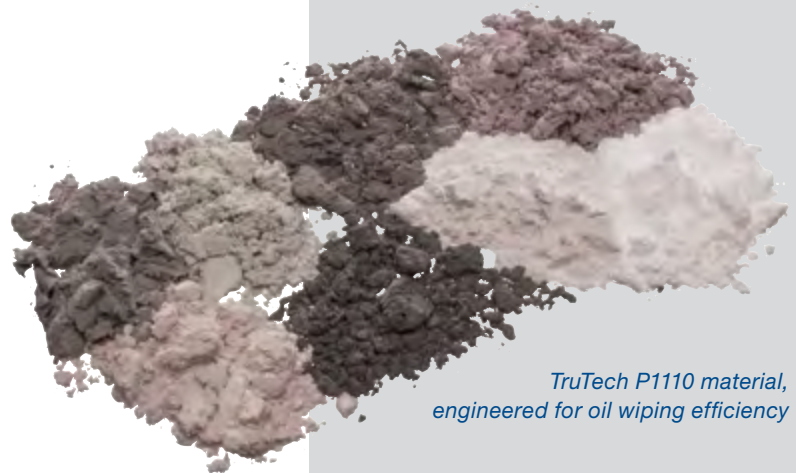
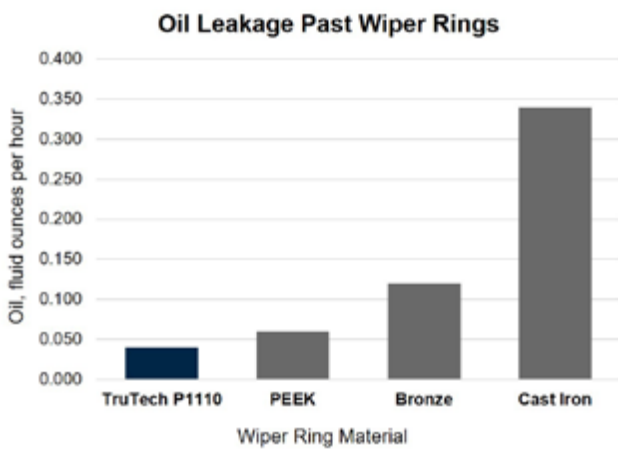
Wiper packing plays a critical role in maintaining compressor reliability by preventing crankcase oil from entering the pressure packing. To perform effectively, wipers must remove oil from the entire circumference of the piston rod. This requires wiper rings that are properly designed for their application and constructed of material that provides the optimum balance of strength, flexibility and durability.

Cook Compression® developed TruTech P1110 material to meet the unique demands of oil wiper service. The innovative PTFE-based compound is engineered to provide a sharp wiping edge and to retain the wiping edge over extended use. TruTech P1110 is also formulated to impart flexibility to wiper rings, allowing the material to tightly conform to the rod surface and eliminate potential leak paths. As a result, wiper packing manufactured with TruTech P1110 has the ability to perform efficiently and reduce the costs and environmental risks associated with excessive oil consumption.

### SUPERIOR RESULTS

Tests conducted in controlled laboratory conditions confirm that wiper rings made from TruTech P1110 are significantly more effective at stopping oil leakage compared to rings made from other materials. TruTech P1110 rings remove 11% more oil from the rod than PEEK, the next-best wiper ring material. TruTech P1110 performs 64% better than bronze and 86% better than cast iron.

The chart below shows relative leakage rates past wiper rings for each material.



*TruTech P1110 material, engineered for oil wiping efficiency*

### ADVANTAGES

- Improves oil-wiping efficiency
- Enhances retention of the oil wiping edge
- Increases conformability of wiper rings
- Reduces oil consumption and costs
- Helps protect the environment and ensure regulatory compliance
- Can be used in all lubricated applications where PTFE can be applied
- Can be applied to other sealing components
- Cook Compression engineering support ensures optimum material selection

## ADDITIONAL APPLICATIONS

TruTech P1110 delivers outstanding results in oil wiper packing and may be applied in any lubricated service where PTFE can be used. For some applications, TruTech P1110 may also be selected to enhance the performance of piston rings, rider rings, rod packing rings and bushings.

## TRUTECH MATERIALS

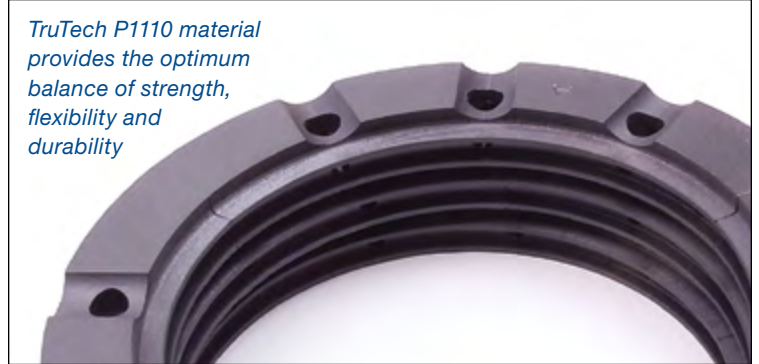
Incorporating the latest advances in polymer science, TruTech™ materials from Cook Compression offer superior durability and optimum performance characteristics for reciprocating compressor components. Experienced Cook Compression specialists provide engineering support to ensure optimal results in each application.

## MATERIALS DEVELOPMENT

The Cook Compression Materials Technology program integrates materials research with extensive engineering resources and more than a century of practical experience. New materials receive intensive laboratory analysis and undergo comprehensive testing before release to the field.

A comprehensive quality control program ensures that materials and finished components meet the highest standards.

*TruTech P1110 material provides the optimum balance of strength, flexibility and durability*



### TYPICAL PROPERTIES

Tensile strength	2700 psi (18.6 MPa)	ASTM D1708
Elongation	125%	ASTM D1708
Coefficient of thermal expansion (CTE)	$65 \times 10^{-6}/^{\circ}\text{F}$ ( $117 \times 10^{-6}/^{\circ}\text{C}$ )	ASTM E831
Hardness	65 Shore D	ASTM D2240
Specific gravity	2.0	ASTM D792