TruTech® P3330 Material

TruTech P3330 material is a proprietary polymer alloy developed by Cook Compression® to produce long-life sealing components for non-lubricated gas compressors. It is formulated to be especially effective in bone-dry (extreme low dew point) applications, but can also offer excellent results in wet service.

TruTech P3330 material delivers exceptional performance in packing rings, piston rings, rider rings and bushings. The unique formulation, together with Cook Compression's advanced manufacturing methods, produce sealing components that boost reliability in applications where PTFEs and other low-friction materials give poor service life.

PROVEN DRY-GAS ENDURANCE

Seal rings experience severe wear in dry-gas applications, particularly as pressures and speeds increase. Components made from TruTech P3330 material offer significantly longer service life in these applications, with up to eight times the longevity of traditional PTFE materials.

Components made from TruTech P3330 have delivered longer, more reliable service with a wide range of dry gases, including hydrocarbon mixtures, natural gas, ammonia, eythylene and more.

TruTech P3330 material produces long-life components for challenging non-lube compressor applications

ADVANTAGES

- Outstanding service life in oil-free compressor applications
- Exceptional durability with bone-dry gases
- Up to 8 times the durability of PTFE components in dry-gas service
- Extended life in wet services
- Used to make a wide variety of sealing components
- Cook Compression engineering support ensures optimum material selection

COOK® COMPRESSION

www.cookcompression.com | info-cook@doverprecision.com

DOVER® PRECISION COMPONENTS

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.

Rings made from TruTech P3330 material last up to 8 times longer than PTFE alloys in bone-dry service

TYPICAL PROPERTIES		
Tensile strength at 68°F	1600 psi (11.0 MPa)	ASTM D1708
Elongation at 68°F	5%	ASTM D1708
Coefficient of thermal expansion (CTE)	45 x 10^{-6}/°F (81 x 10^{-6}/°C)	ASTM E831
Hardness	65-70 Shore D	ASTM D2240
Specific gravity	1.9	ASTM D792

APPLICATION HISTORIES					
Service	**Lube (Yes/No)**	**Product Type**	**Discharge**	**Avg. Speed**	**Performance Comments**
Natural Gas	N	Packing rings	670 psi 46 bar	600 ft/min 3.0 m/s	8x improvement over filled PTFE
Isobutane	N	Piston rings Rider rings	225 psi 16 bar	750 ft/min 3.8 m/s	3x improvement over filled PTFE
Ethylene	N	Piston rings Rider rings	195 psi 13 bar	814 ft/min 4.1 m/s	3x improvement over filled PTFE
Carbon dioxide	N	Piston rings Rider rings Packing rings	240 psi 17 bar	430 ft/min 2.2 m/s	6x improvement over filled PTFE
Ethylene	N	Piston rings	200 psi 14 bar	788 ft/min 4.0 m/s	4x improvement

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