

InnoProp® Python PR Resin-Coated Proppant



InnoProp® Python PR is a high-performance precured resin-coated proppant at a superior value. Developed by our in-house team of scientists, this new product significantly reduces proppant fines generation with high-end conductivity resulting in improved well performance.

Applications include all formations with net closure stresses up to 10,000 psi.



ADVANTAGES AND BENEFITS:

- Significantly reduces fines generation
- Increased conductivity to improve well performance
- Non-reactive coating minimizes proppant scaling
- Substrate is high-quality U.S. Silica White® silica sand.
- Compatible with all current fracturing fluids
- High performance alternative to uncoated frac sand

TYPICAL PHYSICAL AND CHEMICAL PROPERTIES

API RP-19C / ISO 13503-2

| Product | Mesh Size | Upper Temp Stability (°F) | Bulk Density g/cm ³ | Bulk Density lb/ft ³ | Particle Density g/cm ³ | Absolute Volume gal/lb | Typical Median Diameter D50 (mm) | Acid Solubility (%) | Turbidity (NTU) |
|--------------------|-----------|---------------------------|--------------------------------|---------------------------------|------------------------------------|------------------------|----------------------------------|---------------------|-----------------|
| InnoProp Python PR | 20/40 | 500 | 1.56 | 97 | 2.56 | 0.046 | 0.572 | < 2.0 | < 250 |
| InnoProp Python PR | 30/50 | 500 | 1.56 | 97 | 2.55 | 0.046 | 0.458 | < 2.0 | < 250 |
| InnoProp Python PR | 40/70 | 500 | 1.54 | 96 | 2.54 | 0.047 | 0.289 | < 2.0 | < 250 |

CONDUCTIVITY

| Product | Mesh Size | CONDUCTIVITY MD-FT at 250°F 2 LB/FT ² | | | | |
|--------------------|-----------|--|-------|-------|-------|--------|
| | | Closure Stress [PSI] | | | | |
| | | 2,000 | 4,000 | 6,000 | 8,000 | 10,000 |
| InnoProp Python PR | 20/40 | 1,690 | 1,497 | 1,091 | 641 | 347 |
| InnoProp Python PR | 30/50 | 1,134 | 953 | 731 | 463 | 246 |
| InnoProp Python PR | 40/70 | 719 | 627 | 480 | 315 | 171 |

PERMEABILITY

| Product | Mesh Size | PERMEABILITY DARCY at 250°F 2 LB/FT ² | | | | |
|--------------------|-----------|--|-------|-------|-------|--------|
| | | Closure Stress [PSI] | | | | |
| | | 2,000 | 4,000 | 6,000 | 8,000 | 10,000 |
| InnoProp Python PR | 20/40 | 95 | 85 | 63 | 38 | 21 |
| InnoProp Python PR | 30/50 | 62 | 52 | 41 | 26 | 14 |
| InnoProp Python PR | 40/70 | 39 | 34 | 26 | 17 | 9.6 |



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CRUSH RESISTANCE API RP-19C / ISO 13503-2

| Product | Mesh Size | CRUSH RESISTANCE | | |
|--------------------|-----------|----------------------|-------|--------|
| | | Closure Stress [PSI] | | |
| | | 6,000 | 8,000 | 10,000 |
| InnoProp Python PR | 20/40 | 0.6% | 1.1% | 1.5% |
| InnoProp Python PR | 30/50 | 0.5% | 0.8% | 1.4% |
| InnoProp Python PR | 40/70 | 0.5% | 0.7% | 1.1% |

Compatibility: This resin-coated proppant is fully compatible with most, if not all, commonly used fracturing fluids both water and oil based. Testing with specific fluids prior to pumping is highly recommended. Some fluids may require adjustment of pH control, breaker, or foamer loadings. Avoid prolonged exposure to highly alkaline fluids, i.e., pH greater than 12 and/or greater than the equivalent of 2.2 gallon free caustic soda per 1000 gallons of liquid.

Disclaimer: The information set forth in this Product Data Sheet represents typical properties of the product described; the information and the typical values are not specifications. U.S. Silica Company makes no representation or warranty (expressed or implied) by this product data sheet.

Warning: The product contains respirable crystalline silica-quartz, which can cause silicosis (an occupational lung disease) and lung cancer. For detailed information on the potential health effects of respirable crystalline silica – quartz, see the U.S. Silica Company Safety Data Sheet.

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