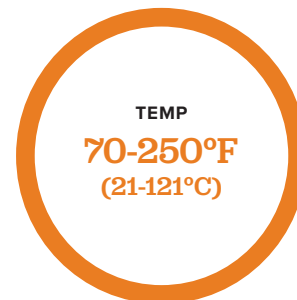


CURABLE RESIN-COATED PROPPANT

APPLICATIONS AND BENEFITS

- High quality resin-coated regional substrate
- Provides proppant flowback control in the fracture
- Pressure activated, so as pressure increases, UCS increases
- Accommodates well temperatures from 70°F – 250°F
- Compatible with all frac fluid systems
- Non-Phenolic Chemistry applied
- Available at Covia's Crane, Texas facility



PHYSICAL AND CHEMICAL PROPERTIES

API 19C

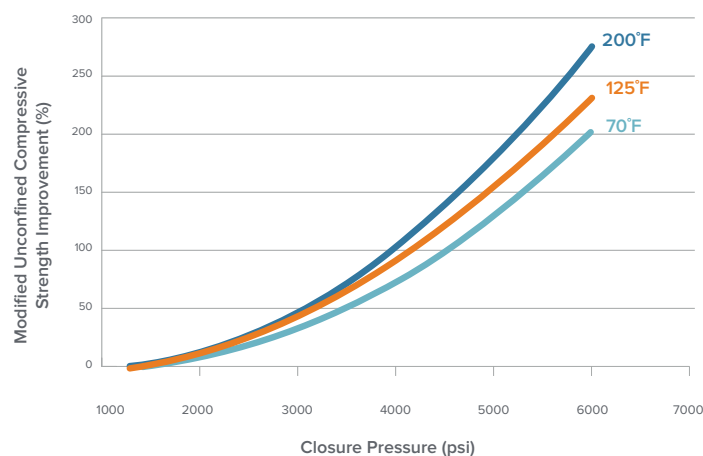
Mesh Size	Krumbein Sphericity	Krumbein Roundness	Absolute Density g/cm³	Bulk Density lb/ft³ (g/cm³)	Absolute Volume gal/lb (cm³/g)	Acid Solubility %	Turbidity FTU	K-Value
40/70	0.7	0.7	2.63	90.5 (1.45)	0.04 (0.0047)	<3.0	<25	8

UNCONFINED COMPRESSIVE STRENGTH (UCS)

Test specimens made using 2% KCl

Mesh Size	Test Temperature °F (°C)	Closure Stress psi (MPa)	Shut-in Time (hr)	UCS psi (kPa)
40/70	70 (21)	1000 (6.9)	24	≥ 15 (103)
	100 (37)	1000 (6.9)	24	≥ 20 (138)
	150 (65)	1000 (6.9)	24	≥ 30 (207)
	200 (93)	1000 (6.9)	24	≥ 40 (276)

MODIFIED UNCONFINED COMPRESSIVE STRENGTH IMPROVEMENT (%) VS CLOSURE PRESSURE



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Standard UCS test cannot be done above 1500 psi. Hence, modified test procedure was adopted in order to demonstrate the effect of closure stress on unconfined compressive strength.

Covia is the oil and gas industry's leading mineral and material solutions provider, with a broad array of high-quality products and distinctive technical capabilities. We have a strong legacy built on a spirit of partnership—with each other, our customers and our communities—because we believe it creates the best ideas, products and outcomes. Partnership attracts great people and helps them excel while fueling innovation and prosperity for all our stakeholders.

Our ability to reliably deliver the right products, to the right place and at the right time, is unmatched. Just as strong is our commitment to building partnerships that help our customers succeed.

All information contained herein is subject to change without notice. Data listed above are typical values and have been generated by Covia and/or independent laboratories. Every real-world sampling is different so your results may vary. Covia proppants and activators are compatible with most commonly used water- and oil-based fracturing fluids. Some fluids may require adjustment of pH control (pH <11.0), foamer, or breaker loading. Avoid prolonged exposure to highly alkaline fluids. Testing prior to pumping is advised.

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