



Atlas Curable Resin Coated Low Temperature (CRC-LT)

Superior by Nature, Quality by Badger®

Atlas Curable Resin Coated Low Temperature (CRC-LT) was specifically designed to prevent proppant flowback in low temperature reservoirs. Developed with a unique and exclusive resin complex, CRC-LT products develop consistent Unconfined Compressive Strength (UCS) you can count on, making it the real Low Temperature Proppant Flowback Solution. All BadgerCoated™ products are built exclusively on Northern White sand substrate so you get the same strength, resistance to embedment and conductivity you have come to expect from the rest of the Atlas product lines.

- For reservoirs as low as 70° F, Atlas Activator was developed to integrate seamlessly with our CRC-LT line of products
- Across the entire temperature spectrum, CRC-LT requires significantly less activator than competing products reducing the effective cost of proppant substantially.

Typical Properties

	16/30	20/40	30/50
Krumbein Shape Factor - Sphericity	0.7 - 0.8		
Loss on Ignition	2.4% - 2.8%		
Turbidity (NTU)	< 200		
Acid Solubility	< 2%		
Absolute Volume (gal / lb)	0.046 - 0.048		
Particle Size Distribution	Meets API RP 19C		
Color	Gold		
Physical State	Free Flowing Solid		
Bulk Density (lb./ft ³)	98.56	98.42	98.42
Bulk Density (lb./gal)	13.17	13.14	13.14
Specific Gravity	2.55	2.58	2.58
Lowest Temperature for Product without Activator	130 °F	130 °F	130 °F

For unconfined compressive strength (UCS) numbers, please utilize the tool on our website entitled *UCS Results Comparison: Proppant Flowback Prevention Recommendations*.

Conductivity md-ft @ 250° F (121° C)

Closure Stress PSI	16/30	20/40	30/50
2,000	4,525	1,527	1,183
4,000	4,075	1,401	1,104
6,000	2,935	1,200	961
8,000	1,494	899	749
10,000	804	542	454
12,000	400	294	239

* Data points represent the median value of accumulated Stim-Lab data

Permeability Darcy

Closure Stress PSI	16/30	20/40	30/50
2,000	250	82	67
4,000	228	78	63
6,000	167	68	55
8,000	88	55	44
10,000	49	33	28
12,000	25	18	15

* Data points represent the median value of accumulated Stim-Lab data

Atlas Activator Loading in Gallons per Thousand at 24 Hours					
Bottom Hole Temperature	70°F	90°F	110°F	130°F	150°F
30/50					
0 GPT				36	100
2 GPT	10	19	29	34	
5 GPT	26	38	44	76	
7 GPT	34	42	50		
10 GPT	35	51	70		
15 GPT					
20/40					
0 GPT				21	39
2 GPT		12	15	38	74
5 GPT	16	13	28	55	96
7 GPT	21	25	27	62	
10 GPT	17	33	49		
15 GPT					
16/30					
0 GPT				15	36
2 GPT			15	20	50
5 GPT		17	24	28	
7 GPT		16	25	38	
10 GPT	9	21	34		
15 GPT	16	25			

* All values in PSI

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All chemical and physical properties are typical and tested in accordance with ISO 13503-2/API 19C in BMC's laboratories. We give no warranty for our products, either expressed or implied. We recommend that you confirm all properties in the laboratory of your choice.



Silica Sand and Resin-Coated Silica Sand Products DANGER

These products have been classified, following the Globally Harmonized System (GHS) of Classifying and Labeling Chemicals criteria, as a Category 1A Carcinogen, a Category 1 Specific Target Organ Toxicity (following repeated exposures), and a Category 2B Eye Irritant. For Industrial Use Only. DO NOT USE THIS PRODUCT FOR BLASTING OR AS AN ABRASIVE. DO NOT PNEUMATICALLY UNLOAD THE RESIN-COATED SILICA SAND PRODUCTS AT A PRESSURE EXCEEDING 5 PSI SO AS TO AVOID ABRADING THE PRODUCT. DO NOT BREATHE DUST. Read the specific Safety Data Sheet (SDS) before using and follow applicable local, state and federal health and safety standards. The SDSs for the products are available online at www.badgerminingcorp.com or by calling 715-662-2400. October 22, 2016 Revision E