



Atlas Curable Resin Coated (CRC-C)

Superior by Nature, Quality by Badger®

Atlas Curable Resin Coated (CRC-C) products combine excellent proppant flowback prevention with the high-end strength and conductivity you would expect from a Premium product. Our exclusive resin complex provides protection from harsh well conditions and reduces or eliminates fines migration in the fracture. The durable nature of our coating significantly reduces embedment versus uncoated propping agents, and because our coating is non-reactive it reduces scale formation. All BadgerCoated™ products are coated on a premium Northern White sand substrate.

- CRC-C is our Premium line of Curable Proppant and is 3.5 – 3.8% resin by weight.
- CRC-C products are a cost effective solution to low and medium density ceramic proppant while providing proppant flowback prevention and reducing embedment.

Typical Properties

	16/30	20/40	30/50	40/70
Krumbein Shape Factor - Sphericity	0.7 - 0.8			
Loss on Ignition	3.5% - 3.8%			
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)	94.30	94.90	94.90	93.01
Bulk Density (lb./gal)	12.61	12.69	12.69	12.43
Specific Gravity	2.56	2.55	2.55	2.50
Lowest Temperature for Product without Activator	160°F	160°F	150°F	150°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	40/70
2,000	4,431	2,147	985	561
4,000	4,027	1,955	890	534
6,000	3,239	1,668	744	481
8,000	1,546	1,100	590	384
10,000	759	550	383	204
12,000	449	276	228	96

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

Permeability Darcy

Closure Stress PSI	16/30	20/40	30/50	40/70
2,000	244	120	55	32
4,000	224	111	50	30
6,000	183	96	42	28
8,000	91	65	34	22
10,000	46	34	23	12
12,000	28	17	14	6

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

www.badgerminingcorp.com

BMCCustomerResourceTeam@badgerminingcorp.com

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