Longchuan Industry District, Yangquan, 045200, P.R. China

## **CQLite™** – Technical Specifications

- Manufactured and Delivered by; Changqing Proppant Corporation
- High quality proppant with high flow rates in both initial and post production stages for greater production and less drop-off.
- Perfect application for moderate well depth.
- Available in standard sizes: 20/40, 30/50

| Physical Properties                 |       | CQLite™           |       |
|-------------------------------------|-------|-------------------|-------|
| US Mesh                             |       | Weight % Retained |       |
|                                     | 20/40 | 30/50             | 40/70 |
| 18                                  | 0     |                   |       |
| 20                                  | 1.9   |                   |       |
| 25                                  | 51.6  |                   |       |
| 30                                  | 39.8  | 3.2               |       |
| 35                                  | 6.5   | 59.7              |       |
| 40                                  | 0.1   | 36.3              | 0.3   |
| 45                                  | 0.1   | 0.5               | 72.6  |
| 50                                  | 0.1   | 0.2               | 26.5  |
| 60                                  |       | 0.1               | 0.3   |
| 70                                  |       |                   | 0.1   |
| 100                                 |       |                   | 0.1   |
| % in size                           | 98.0  | 96.7              | 99.6  |
| Median Diameter, mm                 | 0.718 | 0.522             | 0.373 |
| Crush fines *% by weight generated: |       |                   |       |
| @ 5,000 psi                         | 0.7   | 1.7               |       |
| @ 7,500 psi                         | 3.1   | 4.1               | 3.3   |
| @10,000 psi                         | 5.4   | 8.1               | 5.7   |
| @12,500psi                          | 9.8   | 12.0              | 8.6   |
| @15,000psi                          |       |                   | 10.4  |
| Sphericity                          | 0.9   | 0.9               | 0.8   |
| Roundness                           | 0.8   | 0.9               | 0.9   |
| Acid Solubility, %                  | 2.1   | 5.6               | 5.5   |
| Bulk Density, g/cc                  | 1.60  | 1.60              | 1.60  |
| Bulk Density, lb/cuft               | 100   | 100               | 100   |
| Specific Gravity, g/cc              | 2.69  | 2.76              | 2.74  |
| Absolute Volume, gal/lb             | 0.044 | 0.043             | 0.043 |
| Turbidity, FTU                      | 15    | 48                | 26    |
|                                     |       |                   |       |



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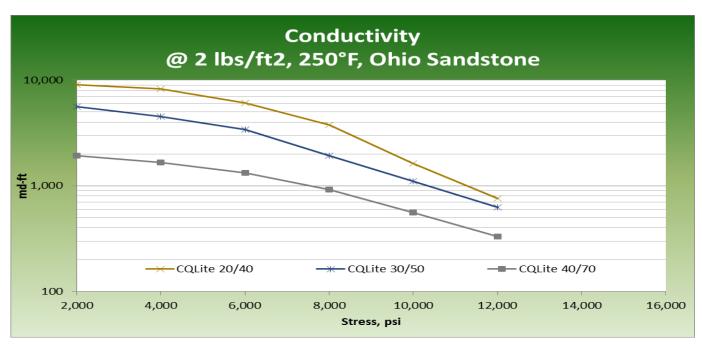
Long-term Conductivity (2 lb/ft2, 250°F, with 2% KCl, Between Ohio sandstone)

## Conductivity (md-ft):

| Closure Stress (psi) | 20/40 | 30/50 | 40/70 |
|----------------------|-------|-------|-------|
| 2,000                | 9,058 | 5,604 | 1,933 |
| 4,000                | 8,257 | 4,533 | 1,655 |
| 6,000                | 6,085 | 3,407 | 1,321 |
| 8,000                | 3,785 | 1,937 | 917   |
| 10,000               | 1,635 | 1,106 | 560   |
| 12,000               | 759   | 627   | 330   |
| 14,000               |       |       |       |

## Permeability (Darcies):

| Closure Stress (psi) | 20/40 | 30/50 | 40/70 |
|----------------------|-------|-------|-------|
| 2,000                | 509   | 324   | 109   |
| 4,000                | 479   | 269   | 96    |
| 6,000                | 365   | 209   | 78    |
| 8,000                | 236   | 122   | 56    |
| 10,000               | 105   | 72    | 35    |
| 12,000               | 50    | 42    | 21    |
| 14,000               |       |       |       |



All the above data are typical values obtained according to ISO 13503-2/API RP 19C, and ISO 13503-5. Actual conductivity may vary substantially due to gel damage, fines migration, and other factors.

For more information, please contact us at <a href="mailto:contact@cqprop.com">contact@cqprop.com</a>.