

# Synthetic Graphite

## GRAPHITE FINE

Lubricating agent

BARITEWORLD

### Product Information

**Graphite Fine** is a fine particle size lubricant used for drilling in water, oil or synthetic mud systems. It reduces differential pressure sticking tendencies. It can be used to control partial filtration in areas of severe circulation losses. It is completely inert and does not affect the rheological properties of the mud.

### Properties

#### Physical Properties:

Physical Aspect: Gray powder  
Specific Gravity: 1.65 – 1.75 g/ml

#### Chemical Analysis:

Solubility in water: Insoluble

#### Particle Distribution

| $D_{10}$            | $D_{50}$            | $D_{90}$            |
|---------------------|---------------------|---------------------|
| 3.894 $\mu\text{m}$ | 23.80 $\mu\text{m}$ | 57.44 $\mu\text{m}$ |

| Channel diameter (Lower) $\mu\text{m}$ | Cum. < Volume % | Channel diameter (Lower) $\mu\text{m}$ | Cum. < Volume % | Channel diameter (Lower) $\mu\text{m}$ | Cum. < Volume % |
|--|-----------------|--|-----------------|--|-----------------|
| 0.375                                  | 0               | 6761                                   | 17.2            | 121.8                                  | 99.9            |
| 0.412                                  | 0.083           | 7422                                   | 18.8            | 133.7                                  | 99.97           |
| 0.452                                  | 0.23            | 8148                                   | 20.7            | 146.8                                  | 99.998          |
| 0.496                                  | 0.44            | 8944                                   | 22.6            | 161.2                                  | 100             |
| 0.545                                  | 0.73            | 9819                                   | 24.8            | 176.9                                  | 100             |
| 0.598                                  | 1.07            | 10.78                                  | 27.1            | 194.2                                  | 100             |
| 0.657                                  | 1.46            | 11.83                                  | 29.6            | 213.2                                  | 100             |
| 0.721                                  | 1.88            | 12.99                                  | 32.2            | 234.1                                  | 100             |
| 0.791                                  | 2.31            | 14.26                                  | 35.0            | 256.9                                  | 100             |
| 0.869                                  | 2.75            | 15.65                                  | 37.8            | 282.1                                  | 100             |
| 0.954                                  | 3.17            | 17.18                                  | 40.5            | 309.6                                  | 100             |
| 1047                                   | 3.58            | 18.86                                  | 43.2            | 339.9                                  | 100             |
| 1149                                   | 3.97            | 20.71                                  | 45.8            | 373.1                                  | 100             |
| 1261                                   | 4.33            | 22.73                                  | 48.6            | 409.6                                  | 100             |
| 1385                                   | 4.67            | 24.95                                  | 51.6            | 449.7                                  | 100             |

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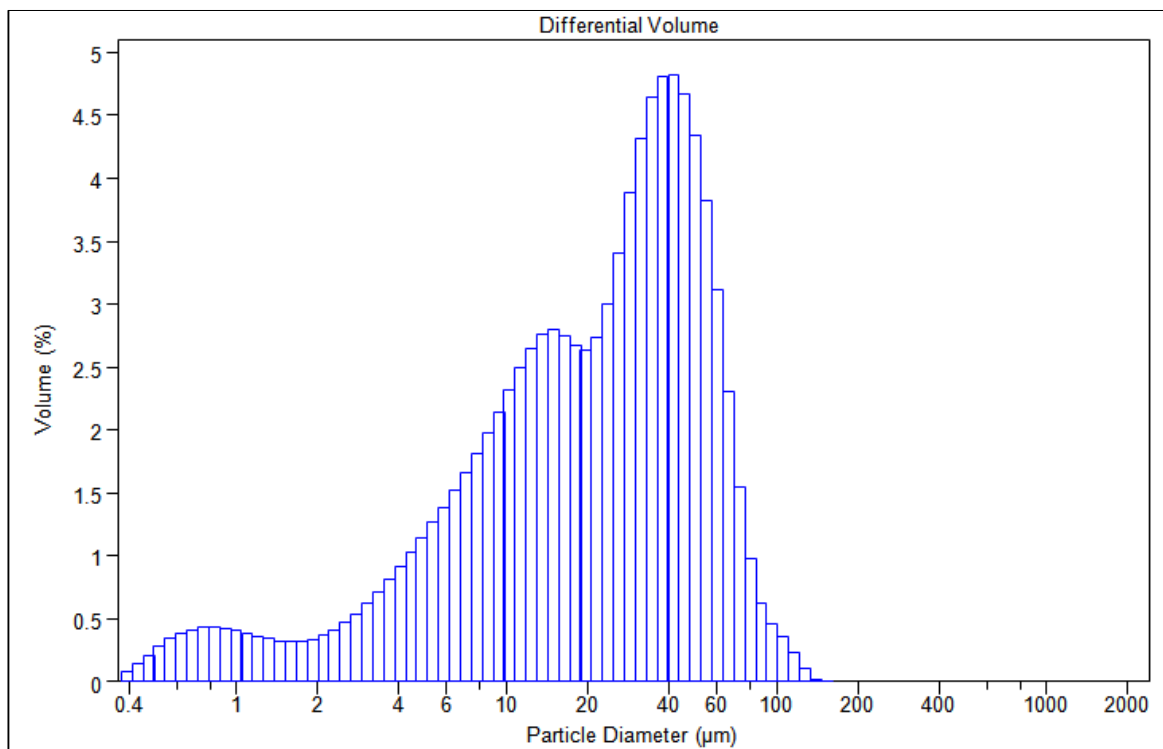
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|      |      |       |      |       |     |
|------|------|-------|------|-------|-----|
| 1520 | 5.00 | 27.39 | 55.0 | 493.6 | 100 |
| 1669 | 5.31 | 30.07 | 58.8 | 541.9 | 100 |
| 1832 | 5.64 | 33.01 | 63.2 | 594.9 | 100 |
| 2011 | 5.98 | 36.24 | 67.8 | 653.0 | 100 |
| 2208 | 6.35 | 39.78 | 72.6 | 716.9 | 100 |
| 2423 | 6.76 | 43.67 | 77.4 | 786.9 | 100 |
| 2660 | 7.23 | 47.94 | 82.1 | 863.9 | 100 |
| 2920 | 7.78 | 52.63 | 86.4 | 948.3 | 100 |
| 3206 | 8.40 | 57.77 | 90.2 | 1041  | 100 |
| 3519 | 9.11 | 63.42 | 93.4 | 1143  | 100 |
| 3863 | 9.93 | 69.62 | 95.7 | 1255  | 100 |
| 4241 | 10.8 | 76.43 | 97.2 | 1377  | 100 |
| 4656 | 11.9 | 83.90 | 98.2 | 1512  | 100 |
| 5111 | 13.0 | 92.10 | 98.8 | 1660  | 100 |
| 5611 | 14.3 | 101.1 | 99.3 | 1822  | 100 |
| 6159 | 15.7 | 111.0 | 99.6 | 2000  | 100 |

### Particle Distribution Chart



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### Functions.

- It can be used in combination with other materials to control lost circulation if severe.
- The product increases lubrication, reduces torque and friction in all mud systems.

### Advantages.

- It can be used in any type of fluid, be it water-based, oil-based or synthetic.
- Inert material, without adverse effects on the rheology of the mud
- Does not require other additives, it presents ease of mixing and dispersion in the system.
- It maintains stability even at high temperatures.

### Limitations

- It requires monitoring of vibrating screens.
- Insoluble in acid and water.
- It is not suitable for sections of open wells where acid solubility is required.

### Application details.

GRAPHITE FINE is used as a powerful lubricating agent. The recommended treatment is 15 to 20 lb / bbl, for more severe cases it is 20 to 50 lb / bbl.

GRAPHITE FINE should be handled like any other industrial chemical product, with personal protection equipment and observing the precautions indicated on the Safety Data Sheet.

### Packaging and Storage.

*The product is presented in 25 kg multi-layer paper bags. It is recommended to store in cool and dry places, away from any source of ignition.*