

# Mica

MICA\* is a soft potassium aluminium silicate mineral graded into fine, medium and coarse size ranges. MICA is used for regaining lost circulation. Fine grade is used extensively as a preventative measure against loss of circulation. It will pass through a 20 mesh shaker screen.

## Typical Physical Properties

Physical appearance..... Cream-colored, free flowing powder  
 Specific gravity..... 1.5 – 1.8  
 Solubility..... 6.5 – 8.0  
 Bulk density ..... 700 - 900 kg/m3

## Applications

MICA is chemically inert in any drilling fluid systems and is unaffected by crude oils, acids or brines. There are 3 grades of MICA; MICA FINE, MICA MEDIUM AND MICA COARSE.

The particle size for each grade are as follows:

| Grade Size    | Fine              | Medium          | Coarse            |
|---------------|-------------------|-----------------|-------------------|
| Particle Size | < 2.36 mm - 100 % | < 3.0 mm - 100% | < 4.75 mm - 100 % |
| Particle Size | 1.0 mm - 92 %     | 2.36 mm - 90 %  | 2.36 mm - 96.6 %  |
| Particle Size | 0.5 mm - 49.4%    | 1.0 mm - 55 %   | 1.0 mm - 55.9 %   |
| Particle Size | --                | 0.5 mm - 20 %   | 0.5 mm - 14.7%    |

MICA FINE may be added to the drilling fluid system as a preventative measure and will not adversely affect the drilling fluid.

Fine grade can be added up to a rate of 11.0 to 17.0 kg/m3 (3.85 to 6 lb/bbl) when a porous zone is anticipated. Medium and coarse grades are used singularly or in combination with other lost circulation materials when severe lost circulation occurs.

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