Silicalite™ cement additive is made from a finely divided, high surface-area silica.

Applications
Silicalite additive can be used as an extender for lightweight cements and a compressive-strength enhancer for low-temperature, lightweight cements. This product also imparts thixotropy to some cement slurries. Silicalite additive can be used in wells with bottomhole circulating temperatures (BHCTs) between 50° and 500°F (10° and 260°C).

Features
Silicalite additive is available as a powder, a liquid, a Pozmix® cement blend, or a compacted material. Compacted Silicalite additive does not have the same performance properties as the liquid or powder forms.

Therefore, designs including compacted Silicalite additive should be subjected to laboratory testing before being used in the field.

Silicalite has a viscosifying effect in most compositions. This additive is frequently used with CFR-2 friction reducer or CFR-3 friction reducer. At static temperatures above 230°F (110°C), a strength-stabilizing agent, such as SSA-1 fine silica flour or SSA-2 coarse silica flour should be incorporated into the slurry design.

Benefits
Because Silicalite additive imparts thixotropy to the slurry, it can help control lost circulation and gas migration. In addition, this product can provide a degree of fluid-loss control and can act as a low-temperature accelerator for saturated salt slurries.

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