

## Liquid Bridge Plug®

**Liquid Bridge Plug®** is a special epoxy resin tailored for oil well applications. The material's viscosity has been lowered to provide easy mixing and placement. The lowered viscosity is accomplished without associated volumetric shrinkage usually accompanying thinning of epoxy resin. A range of hardeners and accelerators have been developed to allow set control over a wide application range.

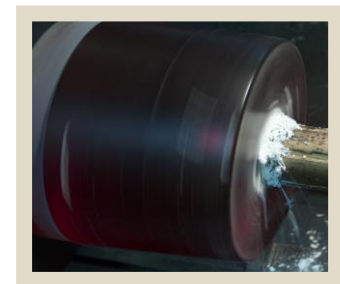
### Applications:

- Seal sustained casing pressure
- Seal micro-annuli
- Seal leaking packers
- Seal casing and tubing leaks
- Shut off gravel pack
- Shut off gas and water
- Formation consolidation/sand control
- Isolation of intervals
- Pressure seal for annulus or pipe
- Seal parted casing
- Plug and abandon
- Viscosities can be altered for sealing control lines with small ID



### Liquid Bridge Plug® Benefits:

- Density controllable
- Controllable and predictable pump time
- Non-shrinking
- Unaffected by H<sub>2</sub>S and CO<sub>2</sub>
- Functions at Low Temperature (5°C)
- Stable from 50°F to 400°F
- Impermeable to gas
- Immiscible in Water and Oil
- Over 200 times the tensile strength of cement
- 4 times the bonding strength of cement
- 4 times the compressive strength of cement

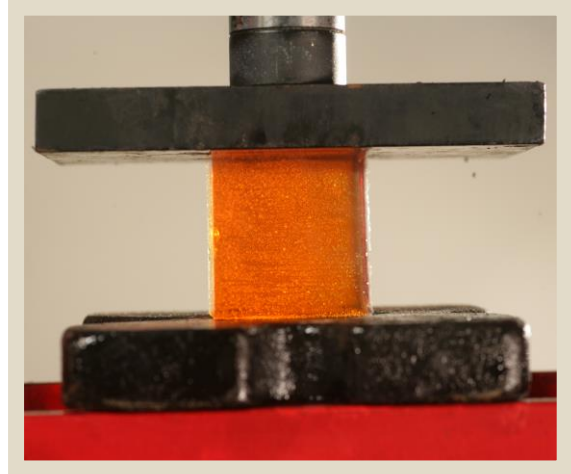
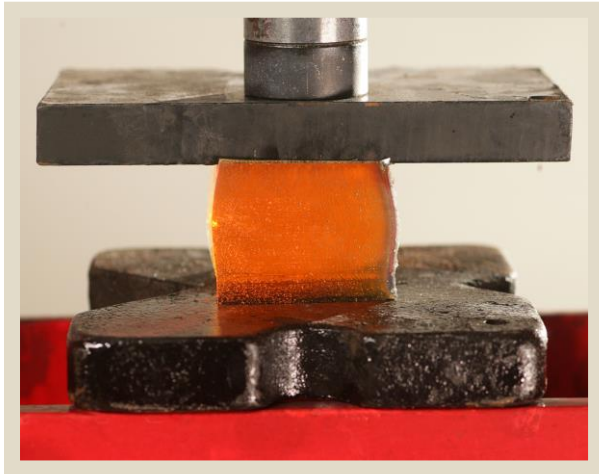


*Easily drilled*

### Liquid Bridge Plug® Additives:

- |  |  |
|--|--|
| • <b>Liquid Bridge Plug®</b> Part A    | - base resin                                 |
| • <b>Liquid Bridge Plug®</b> Part B LT | - low temperature activator                  |
| • <b>Liquid Bridge Plug®</b> Part B HT | - high temperature activator                 |
| • <b>Ultra Surf</b>                    | - surfactant for equipment and line cleaning |

# WellTech



**Liquid Bridge Plug®** has 4 times the compressive strength of cement. **Liquid Bridge Plug®** will reform and not fracture like cement and other downhole sealants on the market.



**Liquid Bridge Plug®** left to right in the above picture, neat at 9.2 ppg, weighted up to 19.0 ppg, and then “weighted” with glass beads to be lighter than water or brine. Thus weighted it can be gravity dropped onto a leaking packer or onto TOC with an SCP problem. Or with glass beads placed on top of a weighted brine.