

D264 Nanosealant

High-injectivity, self-diverting leak repair fluid

APPLICATIONS

- Remediation of sustained casing pressure
- Repair of pinhole leaks in cemented casings

BENEFITS

- Repairs leaks as small as 20 um with injectivity comparable with that of water
- Minimizes operation time and number of squeezes by self diverting to plug multiple gaps or cracks of different widths
- Simplifies operations as a single-component fluid requiring no mixing at surface
- Reduces cleanup time

FEATURES

- Self activation in contact with cement
- Coiled tubing, drillpipe, or surgical placement options
- Ability to withstand high pressure differentials (>1,000 psi/ft [>22.6 MPa/m]) when placed in microleaks
- High drillability

D264 nanosealant is a single-component, self-diverting technology used to repair small cracks and microannuli in a cemented annulus. It is ideal for repairs for which injectivity is too low to pass Portland cement-based systems or microcement systems such as SqueezeCRETE* remedial cementing solution.

Plug more leaks in a single squeeze

The D264 nanosealant begins to set only after contact with set cement and hardens in a matter of hours. This property extends the possible squeeze time and combines with the self-diverting property to enable penetration into more leakage paths—as each leak is sealed, the fluid flows into the next gap.

Another advantage of this setting mechanism is that it can be implemented rapidly without laboratory testing of thickening time or curing time, which are required for well cement or other sealants. It also improves postsqueeze cleanup because of the low risk of setting inside tubulars or surface equipment.

This nanosealant is a single-component system; thus, no mixing or blending is required at surface. Because of its low rheology and nanosized particles, injectivity is similar to that of water and has been demonstrated to penetrate leaks as small as 20 um.

Choose the best placement for each well

The nanosealant can be placed through conventional tubing, coiled tubing, or with a CHDT* cased hole dynamics tester. The CHDT tester is a wireline tool that creates a hole in the casing, injects the sealant, and then plugs the hole with a mechanical metal-to-metal seal that can withstand pressure differentials as high as 10,000 psi [69 MPa].

D264 Nanosealant Specifications

Placement temperature	Up to 250 degF [120 degC]
Maximum exposure temperature	300 degF [150 degC]

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