



IntegraBond™ Heal

A SELF-SEALING CEMENT SYSTEM FOR A SUPERIOR CEMENT ANNULAR SEAL

APPLICATIONS

- Critical primary cementing operations
- Vertical, inclined and horizontal wellbores
- Fields with a history of sustained annular pressure
- Wells exposed to high-pressure fracturing operations

FEATURES & BENEFITS

- Shuts off liquid hydrocarbon flow through cement matrix cracks or micro-annulus
- Enhances durability of cement
- Improves tensile to compressive strength ratio
- Addresses and mitigates risks associated with sustained casing pressure
- Mixed and pumped with conventional cementing equipment
- Can effectively strengthen the wellbore to minimize lost circulation
- Compatible with virtually all API and ASTM, Pozzolan and lightweight cements, as well as BJ Services cement additives

OVERVIEW

Because of changes in pressure and temperature to the cement sheath over time, the cement sheath may fail or crack and allow annular pressure to build up. This cracking and pressure build-up can result in:

- Sustained casing pressure
- Lost production
- Contaminated water zones
- Cross flow
- Collapsed casing
- Increased workover costs

By incorporating IntegraBond Heal additive into the cement blend, this solution improves the mechanical properties of the cement. If the cement cracks and is infiltrated by hydrocarbons upon contact, the self-sealing material absorbs the hydrocarbon and swells the material to plug the gap, and shut off and seal the hydrocarbon flow. The additive remains inactive in the set cement until hydrocarbon contacts the material.

Results show that cracks up to 0.009 in. (0.2286 mm) can be effectively sealed. It can self-seal multiple times and delivers a durable cement sheath in a wide variety of field conditions.

TYPICAL PROPERTIES

COMPRESSIVE STRENGTH	2,350 psi
TENSILE STRENGTH	350 psi
YOUNG'S MODULUS	7 x 10 psi
POISSON'S RATIO	0.3