NeoProducts Technical Team has developed cmt kits that have been successfully run in hundreds of thousands of wells over the last 30+ years. Our cmt kits are Global Benchmarks.

**NeoSuperSlurry - NeoFlex Dump Bailer Cement Kits**
Yields 17 ppg high shear bond expanding flexible cmt slurry
Service Temperature Range: 70° - 350° F (21° - 177° C)
P/N E0101-350-017-Cefas

**NeoFlex is a Flexible Expanding Cement System (FECS)**

FECS have unique physical properties that stop gas migration and sustained casing pressure (SCP).

*NeoFlex* Dump Bailer Cmt Kits are off-the-shelf ready-to-go cmt kits that contain components needed to build a high-tech high-ΔP cmt plug. Easy to follow mixing instructions are contained in each kit. *NeoFlex* Kits are available in 5 gallon batches and bulk volume.

**Features**

- FECS abate gas migration and the occurrence of SCP,
- Low permeability prevents gas migration and ensures long-term well integrity,
- Flexibility eliminates the occurrence of micro cracking and micro annuli,
- Flexibility abates de-bonding between cmt and casing and also between cmt and earthen formation,
- FECS expand during curing and continue expanding for months, and
- FECS block hydrocarbon migration and incorporate enhanced bonding properties for lifelong zonal isolation.

*NeoFlex* Dump Bailer Cmt Kits yield plugs that anchor and seal for the lifetime of the well.

Refer to page 2 for more technical information.
FECS Eliminate Gas Migration & SCP

Flexible Expanding Cmt Systems (FECS)

**FECS abate the occurrence of Sustained Casing Pressure (SCP)**

FECS have physical properties that are unique amongst themselves: high fracture toughness, high flexible shear bonds with csg and earthen formation, flexible solid state expansion, low elastic moduli, unique Poisson’s effect, extremely low permeability, and sustained long-term elasticity.

**NeoFlex** is a top performing cmt plug-back system. **NeoFlex** is a FECS. It’s admixes are unique and ideally selected to eliminate the occurrence of gas migration and SCP.

Numerous multi-national service and oil producing companies have published research findings and field operation reports lauding the attributes of FECS and how they thwart the occurrence of gas migration and most importantly abate SCP.

The list of references below describe the applications and attributes of FECS relative to: gas migration, the occurrence of longitudinal micro-cracking, radial micro-cracking in cmt sheaths, de-bonding of cmt from csg and earthen formations, and SCP.

**References**

**FECS Mitigate the Occurrence of Gas Migration and Sustained Casing Pressure**

CSUG/SPE 149440
Flexible, Expanding Cmt System (FECS) Successfully Provides Zonal Isolation across Marcellus Shale Gas Trends

SPE-186930-MS
Flexible Cmt Extends Wellbore Life with an Integrated Approach to Zonal Isolation

IADC/SPE 128226
Self-Healing Cmt System – A Step Forward in Reducing Long-Term Environmental Impact

SPE 116757
Responsive Cementing Material Prevents Annular Leaks in Gas Wells

SPE/IADC 105781
Self-Healing Cmt – Novel Technology to Achieve Leak-Free Wells

SPE 156501
Nano-engineered Oil Well Cmt Improves Flexibility and Increases Compressive Strength: A Laboratory Study

IADC/SPE 112715
Innovative Hydraulic Isolation Material Preserves Well Integrity
Neoflex plugs may be pressure tested 18 – 24 hrs after the last bailer run.

The double hump SBS curve is related to the complex interactions of transient cement silicate phases and retarder concentrations.

NeoProducts prudently recommends “never dump less than 10 ft of cmt slurry when a long-term high ΔP plug is desired”.

Plug Length Required for ΔP & T

\[ l (ft) = 2 \times \frac{\Delta P \times ID \ (in) \times F_{dev}}{48 \times SBS} \]