



## **NeoProducts<sup>®</sup> Cement Kits & Related Products**

100% of the cement used in NeoProducts Cement Kits is Class H (HSR) and is certified to meet all requirements of API Specification 10A. NeoProducts Cement Kits meet all BSEE cement requirements for dumping bailing and building cement plugs in casing.

Shipments of NeoProducts Cement Kits are composed of gray pails containing a dry cement blend and blue pails containing the potable water. The part number for the NeoSuperSlurry Water Pail is 0105-000-000.

### **P/N 0105-350-017F • NeoSuperSlurry – NeoFlex System • (70° - 350° F Service Temp Range)**

**The dry blend pail in this kit is easily identified by its Yellow Lid.**

This NeoFlex SuperSlurry System is available in single pail and two pail forms. The single-pail kit contains a blend of High Sulfate Resistant (HSR) API cement and proprietary admixes. The two-pail kit includes the dry blend pail plus a pail containing a premeasured amount of mix water. Both kit forms yield a 5 gallon batch of 17 ppg Expanding Flexible cement. The slurry contains proprietary expansion and suspension agents, shear bond enhancing admixes, plus numerous constituents needed to assure high ΔP flexible cement plugs. NeoFlex plugs have unique physical properties that enhance cement elasticity and cement bonding to casing and formations, therein substantially reducing the occurrence of micro-cracking, gas migration, and the occurrence of sustained casing pressure. View [NeoFlex Product Bulletin](#) for more information.

### **P/N 0105-350-017 • NeoSuperSlurry System • (70° - 350° F Service Temp Range)**

**The dry blend pail in this kit is easily identified by its Gray Lid.**

This SuperSlurry System is available as a two-pail kit. The two-pail kit contains a blend of High Sulfate Resistant (HSR) API cement and proprietary admixes, as well as a kit with a premeasured amount of mix water. This two-pail kit yield a 5 gallon batch of 17 ppg Expanding High Shear Bond slurry. The slurry contains proprietary expansion and suspension agents, shear bond enhancing admixes, plus numerous constituents needed to assure high ΔP plugs. NeoSuperSlurry plugs provide hydraulic seals that are anchored in place for the life of the well. Each kit contains a report listing the cmt grind number, production date, the API compressive strength for the neat cement, and the 24 hr compressive strength and shear bond strength for the NeoSuperSlurry blend in the kit.

### **P/N 0105-300-017 • NeoSlurry System • (70° - 300° F Service Temp Range)**

**The dry blend pail in this kit is easily identified by its Green Lid.**

This Slurry System is available as a two-pail kit. The two-pail kit contains a blend of High Sulfate Resistant (HSR) API cement and proprietary admixes, as well as a kit with a premeasured amount of mix water. This two-pail kit yield a 5 gallon batch of 17 ppg Non-Expanding slurry. NeoSlurry plugs provide hydraulic seals that are anchored in place for the life of the well. Each kit contains a report listing the cmt grind number, production date, the API compressive strength for the neat cement, and the 24 hr compressive strength and shear bond strength for the NeoSlurry blend in the kit.

### **P/N 0105-450-017 • HPHT NeoSuperSlurry System • (300° - 450° F Service Temp Range)**

**The dry blend pail in this kit is easily identified by its Red Lid.**

This HPHT System is available as a two-pail kit. The two-pail kit contains a blend of High Sulfate Resistant (HSR) API cement and proprietary admixes, as well as a kit with a premeasured amount of mix water. This two-pail kit yield a 5 gallon batch of 17 ppg Expanding High Shear Bond slurry. The slurry contains a proprietary HPHT suspension agent, an expansion admix, shear bond enhancing admixes, plus numerous constituents needed to assure high ΔP plugs. NeoSuperSlurry plugs provide hydraulic seals that are anchored in place for the life of the well. Each kit contains a report listing the cmt grind number, production date, the API compressive strength for the neat cement, and the 24 hr compressive strength and shear bond strength for the NeoSuperSlurry blend in the kit.

### **P/N 0105-300-020 • 20 ppg NeoSuperSlurry System • (70° - 325° F Service Temp Range)**

**The dry blend pail in this kit is easily identified by its Black Lid.**

This 20 ppg slurry system is available as a two-pail kit. The two-pail kit contains a blend of High Sulfate Resistant (HSR) API cement and proprietary admixes, as well as a kit with a premeasured amount of mix water. This two-pail kit yield a 5 gallon batch of 20 ppg Expanding High Shear Bond slurry. This 20 ppg slurry is ideal for dumping in 16 – 18 ppg wellbore fluids. This slurry yields hydraulic seals that anchor in place for the life of the well.

### Dump Bailer Cement Systems



### NeoSuperSlurry<sup>®</sup> Modifier Packs

#### Essential When dumping Cmt Slurry in Crude Oil

- P/N • 0100-450-090 – NeoCasingCleaner (70° - 450° F Service Temp Range)

NeoCasingCleaner is composed of a 4 gallon batch of 10.0 ppg CaCl<sub>2</sub> fluid with surfactants and detergents that: 1) displace crude oil, 2) provide a fluid environment where cmt can set, and 3) cause oil films to peel off the csg id surface, therein assuring a cmt to csg bond.

#### Weight-up to 18 ppg

- P/N • 0105-350-018 – 18 ppg Weight-up Pack (70° - 350° F Service Temp Range) for use with 17 ppg NeoSuperSlurry Kit P/N 0105-350- 017.

Use of one pack per cmt kit will allow the user to increase the density of the slurry from 17 ppg to 18 ppg.

#### Shorten Setting Times

- P/N • 0101-225-017 – Accelerator Pack (70° - 225° F Service Temp Range) for NeoSlurry and NeoSuperSlurry Kits.

One Pack is added to one kit. Addition of one pack to a cmt kit will shorten the setting time of the cement slurry, i.e., set time = 6 - 8 hrs and cause the plug to achieve its normal 24-hr strength in 17 – 19 hrs.

- P/N • 0105-350-017 G1-G3 and/or 0105-350-017 G2-G3 – NeoSuperSlurry System Conversion Pack (70° - 350° F Service Temp Range) for NeoSuperSlurry Kits. One Pack is added to one kit.

This G3 NeoSuperSlurry System Modifier Pack converts the current G1 and G2 NeoSuperSlurry Cement Kit to a G3 NeoSuperSlurry Cement Kit. The G3 cement system now has retarder packages for temperature intervals of 10F°, rather than 25F°. This change results in faster strength development, shorter required plug lengths, and shorter WOC times.

If the cement slurry is properly mixed with the appropriate admix packages at a high shear rate, the cement slurry has been tested to begin gelling/thickening after 90 minutes of run time. The cement slurry has been developed to be pressure tested 12 hours after the last bailer run.

#### Increase Bond Str to Csg @ Low Temps

- P/N • 0102-225-017 – Low Temp Expansion Pack (70° - 225° F Service Temp Range) for use with NeoSuperSlurry Kit P/N 0105-350-017.

The degree of solid state expansion and bond strength to the casing at temperatures below 225° F can be significantly improved by using this accessory pack. Use one pack per cement kit.

#### Add 1 - 2 hrs To Run Times

- P/N • 0103-225-017 – Low Temp Extended Run Time Pack (70° - 225° F Service Temp Range) for use with NeoSuperSlurry Kit P/N 0105-350-017.

Use of one pack per cmt kit will extend the allowable time from mixing to dumping by an additional 1 - 2 hrs.

### Dump Bailer Cement Systems



- P/N • 0103-350-017 – Intermediate Extended Run Time Pack (225° - 350° F Service Temp Range) for use with NeoSuperSlurry Kit P/N 0105-350-017.

Use of one pack per cmt kit will extend the allowable time from mixing to dumping by an additional 1 - 2 hrs.

- P/N • 0103-400-017 – HPHT Extended Run Time Pack (300° - 400° F Service Temp Range) for use with HPHT NeoSuperSlurry Kit P/N 0105-450-017.

Use of one pack per cmt kit will extend the allowable time from mixing to dumping by an additional 1 - 2 hrs.

### Essential When dumping Cmt Slurry in Bromide & High Chloride Ion Concentrations

- P/N • 0104-350-017 – Neo Salt Saturation Modifier Pack (70° - 350° F Service Temp Range)

Neo Salt Saturation Modifier Pack is composed in a 3-1/2 gallon pail with 1) NaCl Salt, 2) suspension agent 3) surfactant agent, and 4) shear bond enhancer. Use of one pack per cmt kit will yield a 5 gallon batch of 17 ppg Salt Saturated cement slurry that can be dumped in Calcium and Zinc brines, Bromide and Chloride concentrations, as well as CO<sub>2</sub> gas concentrations.



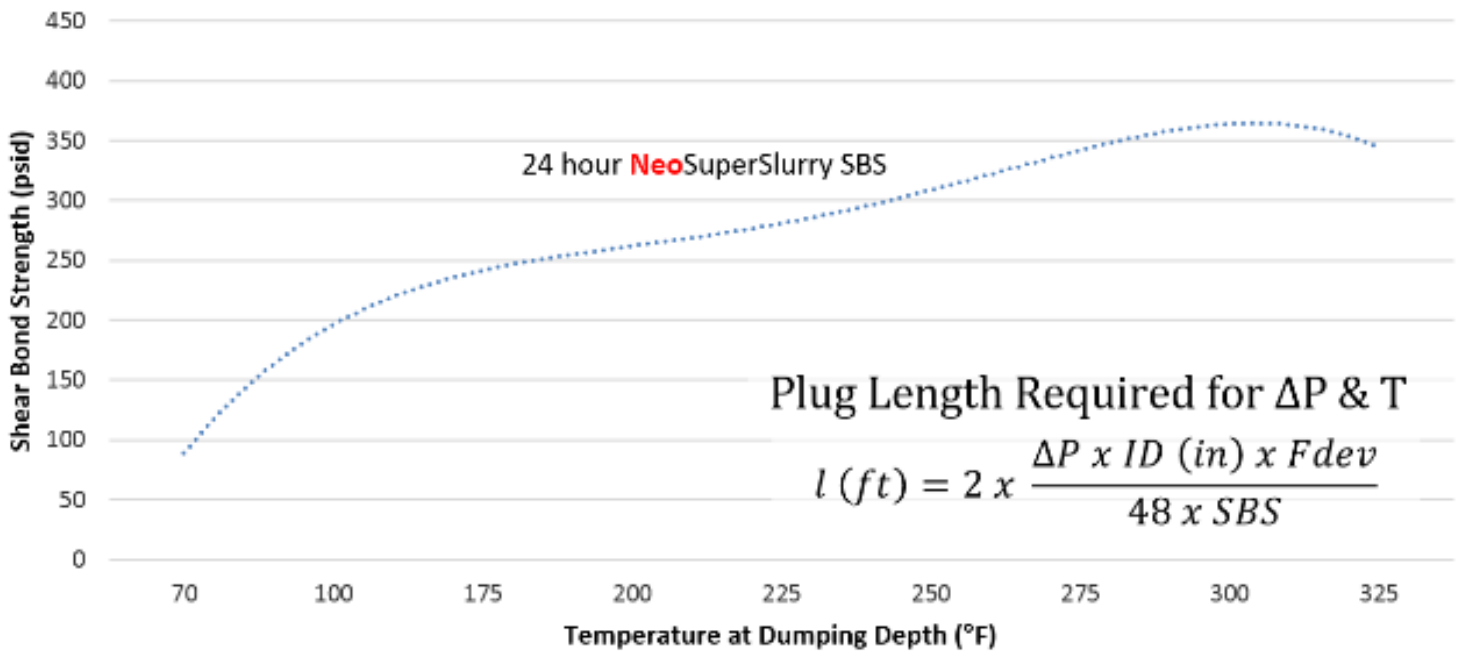
Whenever dumping cement slurry, always locate the bottom of the bailer system 1-2 ft above the bridge plug or 1-2 ft above the top of previously dumped cement.

**A minimum plug length of 10 ft is ALWAYS recommended for all plug-back operations.**

A 24-hr Wait on Cement Time after the last bailer run is ALWAYS recommended before pressure testing.

Recommended plug lengths based on ΔP, csg ID and Shear Bond Strength can be determined from the information below.

24 Hour Shear Bond Strength at Dumping Depth vs Temperature



Plug Length Required for ΔP & T

$$l (ft) = 2 \times \frac{\Delta P \times ID (in) \times Fdev}{48 \times SBS}$$

I = minimum plug length (ft)		SBS = plug-to-csg shear bond @ 24 hr	
ΔP = differential pressure (psid)		Fdev = deviation factor	
ID = casing ID (inches)			
@ 0° DEV, Fdev = 1	@ 30° DEV, Fdev = 1.2	@ 60° DEV, Fdev = 1.6	@ 70° DEV, Fdev = 2.0