PondLock™ Exceeds NRCS Swell Index Standards, Setting a New Benchmark in Natural Pond Sealing Technology

High-sodium bentonite achieves 30 mL swell index, surpassing NRCS Conservation Practice minimum requirement of 22 mL

PondLock, the highest swell sodium bentonite clay

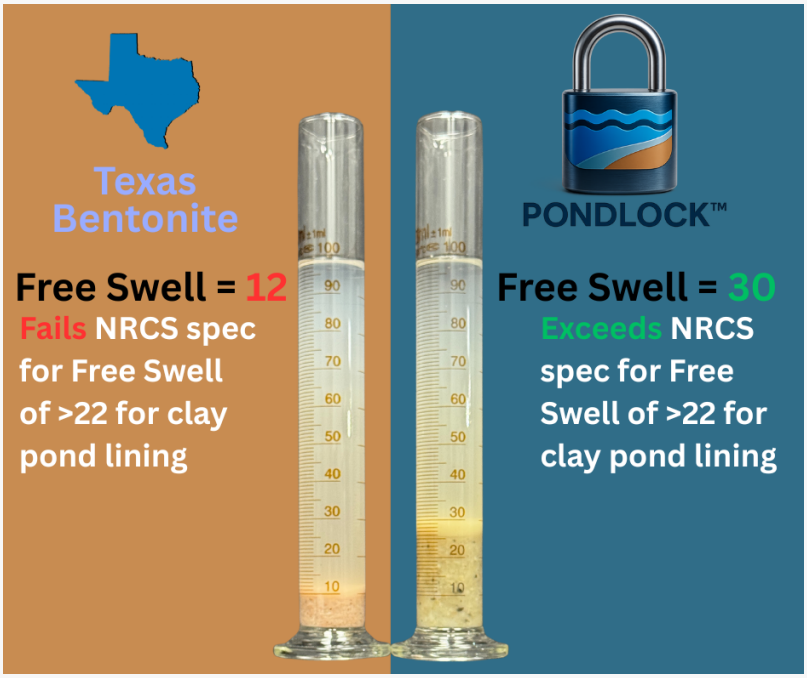
RICHARDSON, TX, UNITED STATES, February 15, 2026 /EINPresswire.com/ -- As global freshwater conservation becomes increasingly urgent, PondLock™ is delivering infrastructure-grade performance using high-swell sodium bentonite clay engineered to dramatically reduce water loss in ponds, agricultural reservoirs, and water containment systems. Tested under ASTM D5890 standards, PondLock achieves a swell index of 30 mL, significantly exceeding the Natural Resources Conservation Service (NRCS) Conservation Practice minimum requirement of 22 mL for bentonite used in pond sealing applications.

The NRCS Conservation Practice standards for pond lining and soil treatment establish technical benchmarks to ensure effective permeability reduction and long-term water retention. Among these criteria is a minimum swell index of 22 mL, a threshold designed to ensure adequate expansion capacity for pore sealing in compatible soils.

With a documented swell index of 30 mL, PondLock surpasses this requirement by more than 35 percent, providing expanded sealing capacity and enhanced permeability reduction.

“When you evaluate bentonite performance through the lens of NRCS standards, swell index becomes a defining metric,” said Jonathan Klotz, President and CEO of Natural Waterscapes, the

exclusive distributor of PondLock. “At 30 mL, PondLock exceeds the 22 mL minimum threshold established under NRCS Conservation Practice guidelines. That margin matters. Greater swelling translates directly into stronger pore sealing and lower hydraulic conductivity.”



Upon luck, sodium bentonite clay is a high-swell bentonite clay that outperforms most other naturally occurring clays.

Why the 22 mL Threshold Matters

The swell index measures how much bentonite expands when hydrated. Under ASTM D5890 testing, the volume increase is expressed in milliliters per 2 grams of material (mL/2g).

A swell index of at least 22 mL indicates sufficient sodium content and mineral structure to:

– Expand adequately to fill soil voids
– Reduce permeability to conservation-grade targets
– Form a dense, low-conductivity barrier
– Maintain performance under hydrostatic pressure

> Water scarcity demands real solutions. PondLock exceeds NRCS standards with a 30 mL swell index, delivering natural, chemical-free sealing that protects our most vital resource.”
>
> *Jonathan Klotz, President & CEO, Natural Waterscapes*

Materials falling below that threshold may lack sufficient expansion capacity to achieve consistent permeability reduction.

At 30 mL, PondLock delivers substantially greater volumetric expansion, enabling more aggressive pore-filling and stronger sealing performance.

Performance Comparison

PondLock (High-Sodium Bentonite): 30 mL
NRCS Minimum Requirement: 22 mL
Mid-Grade Sodium Bentonite Blends: 18–24 mL
Calcium Bentonite: Often 6–15 mL

The performance gap between 30 mL and lower-grade materials becomes especially significant

in sandy or porous soils where aggressive swelling is required to achieve low hydraulic conductivity.

Beyond Swelling: Integrated Soil Performance

Higher swell index values correlate with lower permeability rates, supporting hydraulic conductivity targets commonly associated with NRCS-aligned pond lining practices.

Sodium bentonite reactivates when rehydrated. In seasonal climates or variable moisture conditions, this allows the sealing layer to restore itself after drying cycles or minor soil movement.

Pondlock bentonite clay is available in 2,000 and 3,000 lb bulk sacks.

PondLock contains no synthetic polymers, no petroleum derivatives, and no chemical additives. As a naturally occurring mineral formed from ancient volcanic ash deposits, it presents no contamination risk to groundwater, aquaculture systems, livestock, or surrounding ecosystems.

Water loss through seepage remains a major challenge in agriculture, livestock operations, stormwater retention systems, and environmental restoration projects. Selecting bentonite that meets and exceeds recognized conservation engineering thresholds is essential for long-term performance.

“Freshwater conservation requires measurable standards,” added Klotz. “Exceeding the NRCS 22 mL swell index requirement with a 30 mL performance rating demonstrates that PondLock is not just natural—it is engineered for serious water retention.”

PondLock continues expanding distribution to support agricultural producers, municipalities, conservation districts, and private landowners worldwide. Engineering support and bentonite liner design specifications are available at Pond-Lock.com/engineering-resources.

For more information, visit www.pond-lock.com

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About PondLock

PondLock provides high-swell sodium bentonite clay sealing solutions designed to reduce water loss in ponds, reservoirs, and containment systems. The company focuses on mineral-based technologies aligned with conservation engineering standards to support long-term water stewardship.

About Natural Waterscapes
Natural Waterscapes is the exclusive distributor of PondLock and specializes in sustainable water management solutions for agricultural, commercial, municipal, and residential applications.

Jonathan Klotz
Natural Waterscapes LLC
+1 570-972-2083
email us here
