



*You Build, We Protect!*

# NEWSLETTER

HEGGEL® Corr 225

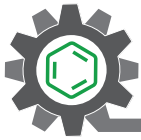
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## Protection for Oxidizing Chemical Storage Tanks

- ◆ **Advanced Performance, Trusted Durability**
- ◆ **Designed for Aggressive Oxidizing Conditions**
- ◆ **Dependable Protection for Hypochlorite Storage Tanks**



### Behind Every Stable Process Is a Reliable Storage System

Sodium hypochlorite (NaClO) is a cornerstone chemical in modern industry, valued for its powerful oxidizing and disinfecting properties. From water treatment to industrial sanitation, its role is essential; however, its storage is often underestimated. Produced through the reaction of chlorine and sodium hydroxide, NaClO is typically stored at concentrations below 15% before being dosed

into process systems. These storage tanks are critical control points that directly influence process stability, safety, and product quality. Even under moderate temperatures and atmospheric pressure, sodium hypochlorite remains a chemically active and aggressive medium. Without the right protection strategy, storage tanks can quickly become the weakest link in an otherwise well-designed system.

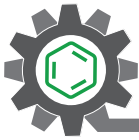
### Sodium Hypochlorite Keeps Industry Running

Sodium hypochlorite solutions in the  $\leq 15\%$  range are widely used because they offer strong performance with manageable handling characteristics. They can be found at the heart of:

- Water and wastewater treatment systems for reliable disinfection
- Cooling water circuits to control biological growth and fouling
- Food and beverage processing for hygiene and sanitation
- Chemical plants for oxidation and cleaning operations
- Industrial bleaching and disinfection processes

Across these sectors, one thing remains constant: the need for safe, stable, and long-lasting storage solutions.





## Inside a NaClO Storage Tank

Sodium hypochlorite continuously interacts with its environment. As a strong oxidizer, it gradually attacks metallic surfaces, especially carbon steel, creating long-term integrity risks.

In real-world operations, this often leads to:

- Progressive corrosion in tank bottoms and lower sections
- Pitting and localized attack around weld seams
- Gradual wall thinning and loss of structural strength
- Increased risk of leakage and unplanned shutdowns

These issues develop over time, often unnoticed until damage becomes critical. What starts as a minor surface defect can evolve into a major operational risk if left unaddressed.



## Engineered Protection

### Protection Is Not Maintenance; It's Process Security

A properly engineered lining system must do more than resist chemicals. It must create a long-term barrier that:

- Prevents chemical permeation into the substrate
- Maintains strong adhesion under continuous exposure
- Withstands mechanical stress and operational wear
- Remains stable across temperature fluctuations

Without these capabilities, even high-quality materials can fail prematurely, leading to increased costs, downtime, and safety concerns.



## HEGSEL Corr 225

### Suitable for Oxidizing Environments

**HEGSEL Corr 225** is a high-performance ceramic hybrid epoxy coating specifically engineered for aggressive chemical environments, including sodium hypochlorite applications up to 15%.

This concentration range covers the majority of industrial NaClO use cases, making **HEGSEL Corr 225** a highly relevant and targeted solution.

What distinguishes **HEGSEL Corr 225** within other coatings is its optimization for oxidizing chemical environments, combined with a high-build, single-layer application concept. As a solvent-free, spray-applied coating, it forms a dense and impermeable barrier that effectively blocks chemical ingress while maintaining exceptional adhesion to steel substrates.

## A Smarter Alternative to Traditional Lining Systems

Vinyl ester and rubber lining systems are widely used in hypochlorite service, but they often rely on multi-layer construction, primer and adhesive bonding, and overlap joints, introducing potential failure points and increasing application complexity.

**HEGSEL Corr 225** provides a more robust and efficient alternative through its high-build, single-layer system applied by airless spray. This creates a seamless, monolithic barrier with no joints or lamination interfaces, significantly reducing the risk of chemical ingress and under-film corrosion.

Its ceramic hybrid epoxy structure and 100% solids formulation ensure low permeability, making it particularly effective against oxidizing media such as hypochlorite solutions. At the same time, its high adhesion and impact

resistance provide strong resistance to mechanical stress in critical areas such as tank bottoms and lower walls.

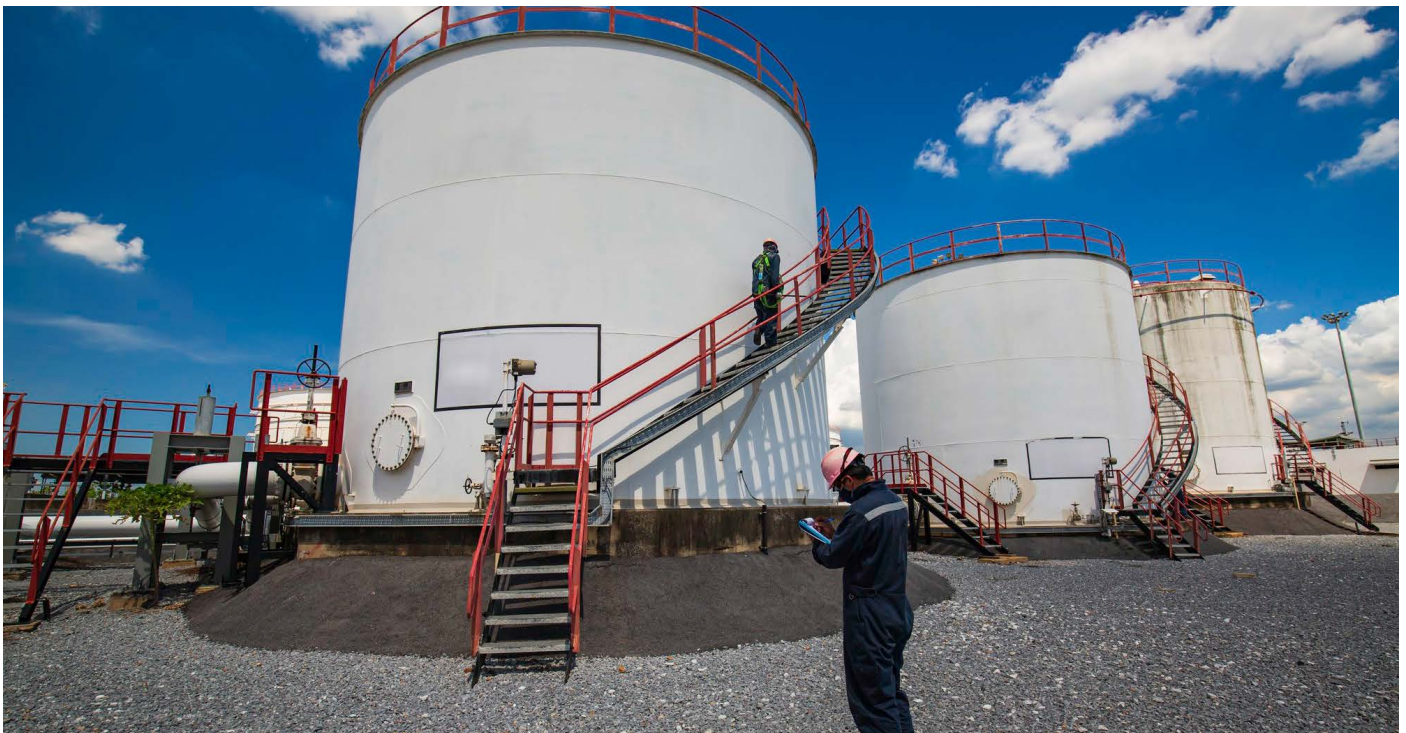
Unlike rubber systems, **HEGSEL Corr 225** does not depend on continuous immersion and is not vulnerable at seams or edges. Compared to vinyl ester systems, it eliminates the need for complex multi-layer curing and lamination control.

**HEGSEL Corr 225** also offers a significantly longer shelf life, more than three years, whereas rubber and vinyl ester materials typically have short and sensitive storage stability. Their limited shelf life often creates maintenance challenges, requiring precise inventory control and frequent material replacement to avoid expiration. **HEGSEL Corr 225**, however, can be stored for extended periods without



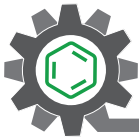
degradation, allowing maintenance teams to keep it readily available in the warehouse. This ensures fast response capability for emergency repairs without the risk of material becoming unusable over time.

The result is a technically optimized solution that combines chemical resistance, mechanical strength, and application efficiency, delivering reliable long-term protection with reduced lifecycle cost.



## Performance You Can Measure

Property	Standard	Typical Value	Unit
Adhesion Strength	BS 3900 E10	> 29	MPa
Abrasion Resistance	ASTM D4060	12	mg loss
Impact Resistance	BS 3900, Part E3, 1973	Forward: 10 Reverse: 3	Joules
Temperature Resistance	–	130 (immersed) / 180 (dry)	°C



The combination of these properties ensures that **HEGSEL Corr 225** performs reliably under both chemical and mechanical stress conditions. The measured strength (>29 MPa) corresponds to cohesive failure within the coating system, rather than failure at the coating–substrate interface. This indicates that the adhesion to the steel substrate exceeds this value, demonstrating an exceptionally strong bond that effectively eliminates the risk of delamination and under-film corrosion. Abrasion resistance contributes to long-term durability in areas exposed to mechanical

wear, such as maintenance access zones. In addition, the coating's impact resistance demonstrates its ability to withstand mechanical shocks and localized stress without cracking or failure. This is particularly important in storage tanks where accidental impacts, tool contact, or operational handling can occur.

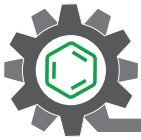
Finally, the wide temperature resistance range provides a strong safety margin, ensuring stable performance well beyond typical sodium hypochlorite storage conditions.

### Built for Long-Term Reliability

Sodium hypochlorite storage is a demanding service where chemical exposure, temperature variation, and mechanical stress constantly interact. Over time, these factors can compromise even robust systems if protection is inadequate.

**HEGSEL Corr 225** addresses these challenges with a balanced combination of chemical resistance, adhesion, and application efficiency. By forming a durable, impermeable barrier, it protects not only the tank, but the entire process it supports.





### Upgrade Your Protection Strategy Today

If your facility relies on sodium hypochlorite storage, the question is not whether protection is needed, but whether your current system is truly built for long-term performance.

Let **HEGSEL** help you take the next step:

- ▶ Evaluate your current tank condition
- ▶ Identify risks before they become failures
- ▶ Implement a proven protection system tailored to your process

[Click here to contact our team](#) today and turn your storage system into a long-term asset, not a hidden liability.

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