

SOLUTION BROCHURE

ZERUST[®] ReCAST-R FOR TANK ROOFS



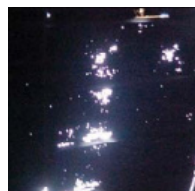
STORAGE TANK ROOF CORROSION PROTECTION

CORROSION PROTECTION

Internal corrosion in AST roofs, caused by variations in product properties, temperatures, and tank designs, results in structural damage and costly repairs. Zerust[®] ReCAST-R combats this by releasing VCIs through roof-mounted dispensers, creating a protective barrier that shields metal surfaces. Compatible with existing systems, it offers reliable and efficient corrosion protection in diverse conditions.

Problem: Tank Roof Damage

- Corrosive vapors from sulfur-containing oils damage internal surfaces and support structures of storage tank roofs above the product layer.
- Aggressive pitting and crevice corrosion lead to holes in tank tops, creating unsafe operating conditions and environmental risks.
- Internal tank coatings fail to prevent pitting and crevice corrosion, particularly in areas between the roof and support structures.
- Tank operation stoppages and frequent roof replacements result in significant capital losses and increased intangible costs for petrochemical facilities.



Internal Holes in
an AST Roof



Corrosion on a
Support Beam



Roof Holes in
an AST

Solution: Zerust ReCAST-R

Zerust[®] ReCAST-R offers an advanced solution to combat internal corrosion in aggressive operational environments. Roof-mounted dispensers release VCIs into the vapor space, creating a protective barrier that shields metal surfaces. Proven to handle diverse conditions, including product variations, temperature fluctuations, and tank designs, it integrates seamlessly with existing systems like scrubbers and nitrogen blankets.

Key Advantages:

- Protects vapor-exposed surfaces, including sidewalls and supports.
- Stops ongoing corrosion in affected tanks.
- Prevents contamination of stored crude oil in operational tanks.
- Extends tank service life while reducing maintenance costs.
- Reduces the rate of corrosion by 4 to 5 times.
- Increases roof life expectancy from 5-7 years to over 25 years.

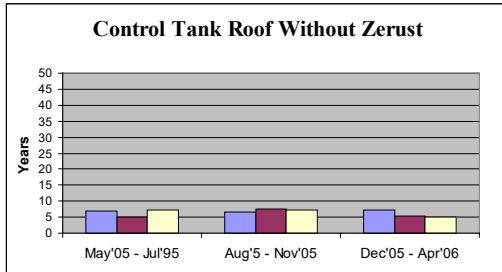


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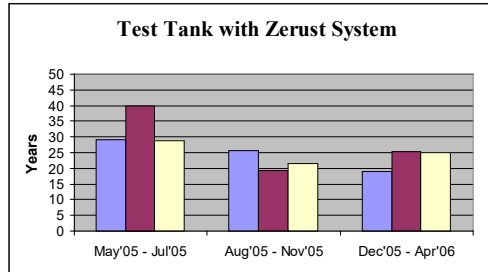


product information




Solution Effectiveness



Average Life Expected = 6 Years



Average Life Expected = 30 Years

 Testing/sampling at rim of tank roof
 Testing/sampling at inner ring of tank roof
 Testing/sampling at middle of tank roof

Operating Environment Inside the ASTs

Parameter	Range in 2-year Field Trial	Range in Laboratory Tests
Ambient Temperatures, °C	22 - 40	20 - 55
Inside Tank Temperatures, °C	22 - 55	20 - 55
Relative Humidity, %	90 -100	60 -100
H ₂ S, ppm	20 - 50	1,000 - 4,600
O ₂ , %	10 - 21	10 - 21
SO ₂ , ppm	>20	500 - 3,600

Availability

- Contact a Zerust® representative for ordering information.

‡ DECLARATION

Corrosion protection claims are based on Northern Technologies International Corporation (NTIC) internal laboratory testing performed under controlled parameters on contaminate-free substrates. Real-world application corrosion protection duration on different substrates will vary and depends on factors such as, but not limited to, the application or use, environmental/ storage conditions, surface cleanliness, type of substrates, and coating thickness (where applicable). The use of the term "Up to" in reference to time is defined as any time duration from zero up to a specified time frame, but in no event beyond the specified time frame. The use of the term "for years" is based on NTIC's experience with its products but is in no way guaranteed. The use of the term "Up to" in reference to volume is defined as any volume from zero up to a specified volume but in no event beyond the specified volume of protection. It is the customer's/user's obligation to evaluate product performance, corrosion protection duration, safety, and suitability for intended use within the scope advised in the data sheet and to comply with all applicable laws and regulations.

LIMITED WARRANTY/DISCLAIMER Warranty is limited to the replacement of a product that fails to meet specifications. For full warranty and disclaimer information, visit www.zerust.com/warranty.

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With over 50 years of experience, Zerust® Integrity Solutions, a division of Northern Technologies International Corporation (NTIC), creates unique inhibitor-based corrosion prevention solutions to serve terminals, pipelines, exploration and production, equipment suppliers, transportation sectors, and more.

Zerust® Integrity Solutions, ZERUST®/EXCOR®, and Natur-Tec® are sister companies under NTIC.

