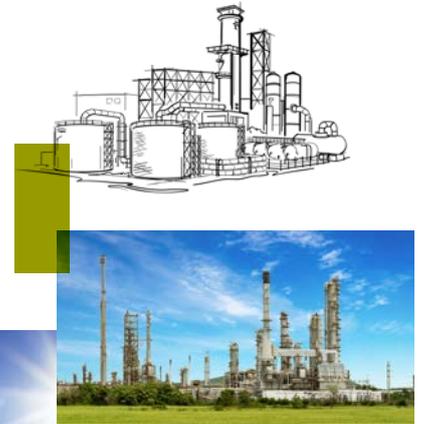


Stay ahead of water. Now and in the long run.

ROCKWOOL ProRox® solutions with WR-Tech™



PATENT PENDING

ROCKWOOL ProRox solutions with WR-Tech™: when durability matters.

Need to protect your plant from water? We lead the field. ProRox stone wool insulation with WR-Tech Water Repellency Technology was the first of its kind, and remains the best-in-class solution to

keeping your plant dry. It maintains durable insulation performance over the critical corrosion under insulation (CUI) temperature range. Read on to find out how WR-Tech can protect your plant.

Heat loss can increase 8x when insulation is wet¹



Thermal conductivity of water = 25x greater than air

+ 5vol% moisture

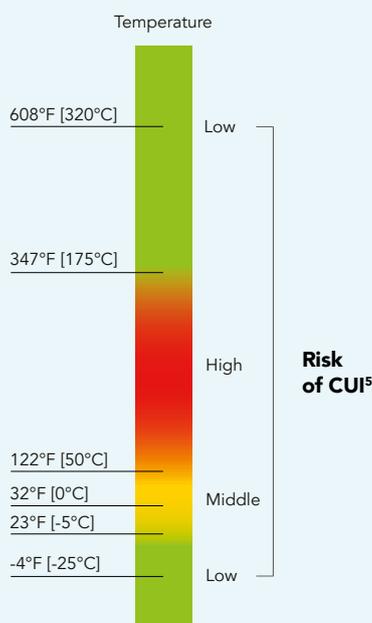
dry insulation



= thermal resistance decreases by 25%²

= minimal thermal loss & CO₂ emissions

Risk of CUI



What does NACE* have to say about CUI?

*"Because CUI is a product of wet metal exposure duration, the insulation system that holds the least amount of water and dries most quickly should result in the least amount of corrosion damage to equipment."*³

*National Association of Corrosion Engineers

Why stay ahead of water?

Water is a major challenge for many industries. In your plant, water can find its way onto the surfaces of your operational-critical equipment and piping systems, even those covered with insulation. The ingress of water, which occurs through every type of insulation, is the main cause of unanticipated heat loss, downtime, and spills due to corrosion under insulation (CUI).

Water promotes corrosion under insulation (CUI)

While the risk and severity of CUI depends on the operating environment, plant design, type of insulation used, and the inspection and maintenance schedule, there are common features and consequences of this type of corrosive attack:

- CUI typically occurs in cyclic plant operations running below 347°F [175°C]⁴
- CUI is responsible for up to 40% of industrial pipe work maintenance costs⁵
- 50% of all hazardous events in industrial plants, such as pipe leakages or ruptures, are caused by aging mechanisms like corrosion, erosion, and fatigue.⁵

What's the best insulation to keep your plant dry?

The optimal insulation to avoid water-related challenges should possess:

- Low water absorption
- Excellent drying ability
- Low leachable chloride content
- Durable performance over the CUI range (<347°F [175°C])



¹ WKS Letter No. 11

² US Steam Digest Volume IV

³ According to INCI

⁴ Shell DEP 30.46.00.31-Gen. September 2011

⁵ Managing Aging Plants 2020

ProRox WR-Tech: the best-in-class solution

ProRox insulation with WR-Tech is an award-winning technology⁶ that has proven its value at keeping critical plant systems dry since 2017. Major operators across a wide array of industries are currently using our proven insulation in their plants, with many others working with us to install it.

Convincing arguments

WR-Tech is a durable choice to keep your plant dry, now and in the long run.

- **Sustained insulation performance**, confirmed in third-party tests and on our data sheets
- **Silicone oil-free**, in full compliance with the strictest standards
- Durable performance over the **critical CUI temperature range**
- Best drying ability thanks to the **fast water dissipation**
- **Lowest water absorption**, even after cyclic heating and prolonged aging.

"ProRox with WR-Tech is a durable choice to mitigate CUI."



Key features

Here's why ProRox with WR-Tech is the ideal way to keep your plant dry and to mitigate Corrosion Under Insulation (CUI).

Low water absorption



"Rain test" Partial immersion 24hrs (EN 13472/ EN 1609)

<0.2 kg/m²

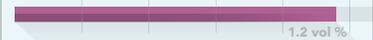
| | |
|---|-------------------------|
| Non heated, non aged | ≤ 0.2 kg/m ² |
| After heating at 482°F [250°C] for 24 hrs | ≤ 0.2 kg/m ² |
| After aging for 6 months at ambient temperature, RV x% | ≤ 0.2 kg/m ² |
| Cyclic heating 122°F - 482°F [50°C - 250°C] for 21 days | ≤ 0.2 kg/m ² |

Drying ability



*Full immersion: 2 hrs (ASTM C1763)

2 HOURS' IMMERSION



AFTER 2 HOURS' RECOVERY



AFTER 48 HOURS' RECOVERY



| | |
|-----------------|----------|
| 2 hrs immersion | 1.2 vol% |
| 2 hrs recovery | 0.5 vol% |
| 48 hrs recovery | 0.0 vol% |

Low water leachable chloride content

≤ 10 mg/kg

Complies with strict industry standards EN 13468.

Silicone oil free

Yes

Complies with VW specification PV 3.10.7, **does not result in fish-eyes**, usable in paint shops.

⁶ ROCKWOOL ProRox with WR-Tech won AMPP's 2019 Corrosion Innovation of the Year award

ROCKWOOL leads the field

WR-Tech is now standard in ProRox mandrel-wound and mat-wrap pipe sections. Available right off the shelf, these ProRox solutions eliminate the need for double stocks and avoid any risk of using incorrect material.



ProRox mandrel-wound pipe sections

Our highly durable, mandrel-wound insulation sections come split and hinged for easy snap-on assembly.

ProRox PS 960 with WR-Tech is ideally suited for thermal and acoustic insulation of industrial pipework, marine, and offshore installations.

ProRox PS 980 with WR-Tech provides excellent thermal and acoustic insulation performance for high-temperature industrial pipework subjected to mechanical loads.



ProRox mat (wrap) insulation

Our next-generation mat (wrap) insulation provides superior insulation performance for large-diameter pipework and other plant equipment requiring design flexibility.

MA 960 with WR-Tech is easily applied to vessels, columns, and complete pipeline systems—including bends—for optimal thermal and acoustic insulation.

Determined to stay ahead of water?

Contact your local ROCKWOOL sales representative, or visit rti.rockwool.com, to learn how ProRox insulation with WR-Tech can mitigate the effect of CUI to keep your plant safer and save you money in the long run.



rti.rockwool.com/wr-tech/

⁷ ROCKWOOL ProRox with WR-Tech won NACE's 2019 Corrosion Innovation of the Year award

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