

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

ROCKWOOL ProRox solutions with WR-Tech™



PATENT PENDING

## ProRox 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 keep your plant dry. It maintains a durable insulation performance over the critical corrosion under insulation (CUI) temperature range. Read on to find out how WR-Tech protects your plant.

## Heat loss can increase 8x when insulation is wet<sup>2</sup>



Thermal conductivity of water  
= 25x greater than air

+ 5vol% moisture

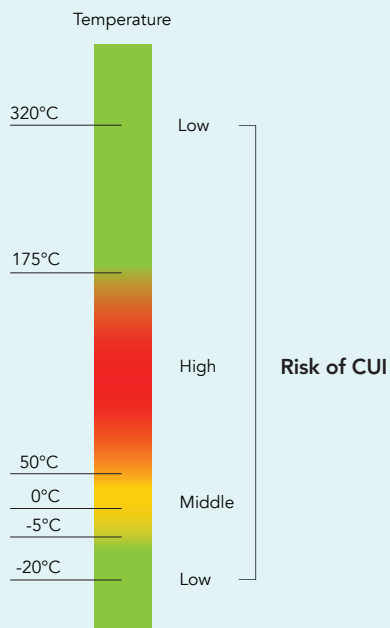
dry insulation



= thermal resistance decreases by 25%<sup>1</sup>

= minimal thermal loss & CO<sub>2</sub> emissions

## Risk of CUI



## This is what NACE\* says:

*"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.\*"*

\*NACE: National Association of Corrosion Engineers

# Why stay ahead of water?

Water is a big challenge for industry, because exposing industrial installations to water threatens continuous operations at your plant. Water ingress cannot be avoided and will occur under every type of insulation. Water is the main cause of unanticipated heat loss, downtime and spills due to corrosion under insulation (CUI).

## Water promotes corrosion under insulation (CUI)

CUI typically occurs below 175°C<sup>3</sup> and in cyclic plant operations:

- The risk/severity of CUI typically depends on environment, plant design, inspection & maintenance, and insulation
- CUI is responsible for up to 40% of industrial pipe work maintenance costs<sup>4</sup>
- 50% of all hazardous events in industrial plants<sup>4</sup>, such as pipe leakages or ruptures, are caused by aging mechanisms like erosion, corrosion and fatigue

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

Low water absorption of insulation is key. As well as:

- Drying ability
- Low leachable chloride content
- Durable performance over the CUI range (<175°C)



<sup>1</sup> US Steam Digest Volume IV

<sup>2</sup> WKS Letter No. 11

<sup>3</sup> Reference: Shell DEP 30.46.00.31-Gen. September 2011

<sup>4</sup> Managing Aging Plants 2020

<sup>5</sup> According to INCI

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

WR-Tech has proven its value since 2017 and major operators in industry now use it or are working with us to install it. Rockwool ProRox with WR-Tech won NACE's 2019 Corrosion Innovation of the year award.

## 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

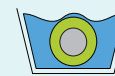


"Rain test" Partial immersion 24hrs (EN 1347 2/ EN 1609)

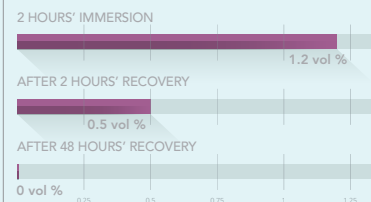
<0.2 kg/m<sup>2</sup>

Non heated, non aged	≤ 0.2 kg/m <sup>2</sup>
After heating at 250°C for 24 hrs	≤ 0.2 kg/m <sup>2</sup>
After aging for 6 months at ambient temperature, RV x%	≤ 0.2 kg/m <sup>2</sup>
Cyclic heating 50°C - 250°C for 21 days	≤ 0.2 kg/m <sup>2</sup>

### Drying ability



\*Full immersion: 2 hrs (ASTM C1763)



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.

# ROCKWOOL leads the field

WR-Tech is now standard in ProRox Wired Mats and on ProRox mandrel wound Pipe Sections and is available off the shelf.

- No double stocks needed
- No chance of using incorrect material



## ProRox Wired Mats

for insulation of large diameter pipework, vessels and columns or applications where design flexibility is required. Now available as standard in Wired Mats:

- ProRox WM 950
- ProRox WM 960



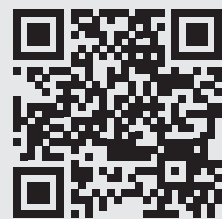
## ProRox mandrel wound Pipe Sections

for easy & fast insulation of pipework. Available in Pipe Sections:

- ProRox PS 960
- ProRox PS 970

## Determined to stay ahead of water?

Contact your local sales rep to learn more about what WR-Tech can do for you. Or register your details at [rti.rockwool.com](http://rti.rockwool.com) to talk with one of our ROCKWOOL Technical Insulation consultants. Because WR-Tech will also help you prevent damp/wet insulation, making your plant safer and saving you money in the long run.



[rti.rockwool.com/wr-tech/](http://rti.rockwool.com/wr-tech/)

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