

INNOVATION  
PROTECTION  
FUTURE

**VIANT® COATING TECHNOLOGY**

Stal-West: The System Supplier offers a smarter way to corrosion protection

VIANT



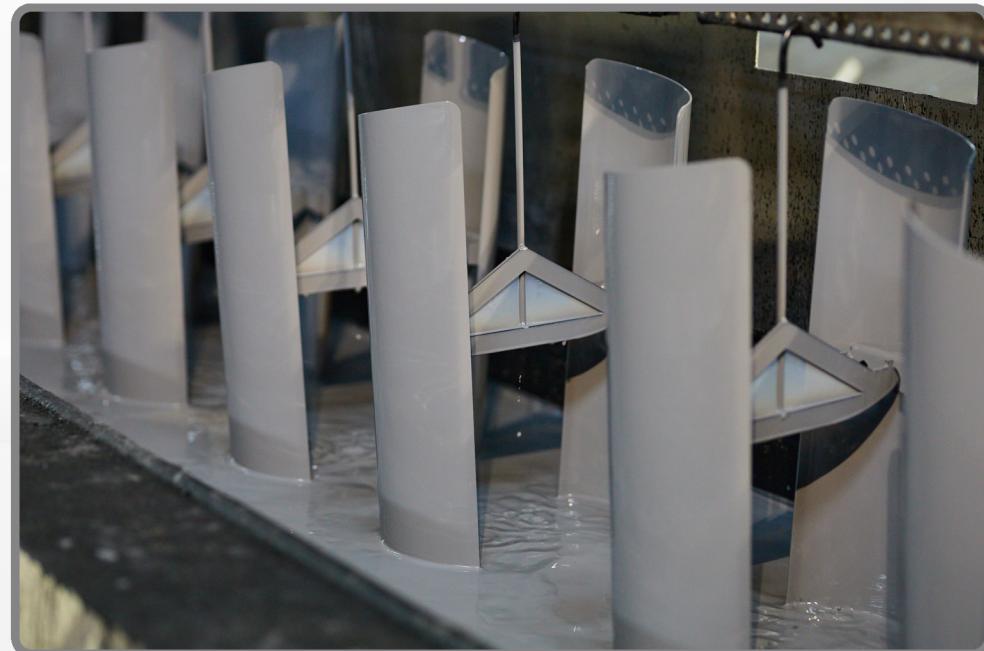
**STAL - West Zrt.**  
THE SYSTEM SUPPLIER

# A smarter way to corrosion protection

The newly created coating technology for higher coverage and increased corrosion protection on edges and inner surfaces.

The VIANT® process combines conversion coating and primer paint in just one coating layer. This new technology is easy to operate and enables reliable corrosion protection on edges and inner surfaces. It does not need high voltage, special equipment, or a constant coating temperature for the coating process step. Instead, VIANT® leads to a shorter process chain, resource savings and reduced running costs.

VIANT® is a user-friendly and more sustainable way to improve your coating process – and a big step towards greater usability, increased efficiency, and lower environmental impact. Follow our new way to pretreat and coat: the VIANT® way.



## A giant leap in coating



### Reduce your carbon footprint

- Lower electricity, water, and chemical consumption
- Just one process step for conversion coating and primer paint
- Free of heavy metals



### Enhance your corrosion protection

- Higher edge coverage
- Homogenous dry films also on inner surfaces
- Superior chemical resistance



### Simplify your coating process

- No electricity for coating deposition
- Enhanced process stability
- Minimized maintenance effort

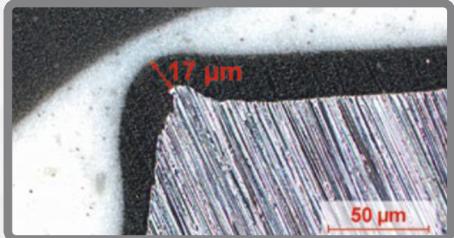


### Improve your total cost of ownership

- Increased productivity
- Complete surface treatment in one place

# Simply stronger coatings

## Pioneering corrosion protection



### Higher coverage on edges and corners

The VIANT® process builds a unique wet coating film driven by liberating ions from the metal surface rather than applying electricity. The film itself has a high viscosity, is robust, and adheres even on sharp edges. This ensures consistent and significantly higher corrosion protection.



### Consistent corrosion protection - outside and inside

No matter how complex a product structure might be: As long as the coating liquid is in contact with the metal surface, the VIANT® process ensures that a wet coating film is built up. Therefore, as a Faraday effect is avoided, even the inner surfaces of pipes can be fully coated with a homogenous dry film.



### Corrosion protection and primer paint in one

The VIANT® process combines conversion coating and primer paint in just one coating layer – with excellent performance on complex structures. It is directly applied onto the steel surface, so no extra conversion coating is needed. Compared with other methods, which typically require at least one additional coating layer, VIANT® saves you an entire process step and reduces your resource demand.



### Superior chemical resistance

The coating is based on an innovative epoxy-based binder system, offering broad chemical resistance against most solvents and acids. The result: the coated metal parts are protected, even in harsh environmental conditions.

### Free of heavy metals – and worries!

# VIANT® Coating Technology

## a sustainable solution



### Zero Pollution

Reduced waste to prevent eutrophication



### Climate Neutrality

GHG reduction through less energy & VOC



### Health and safety

Eco-friendly & human-friendly process



### Resource efficiency

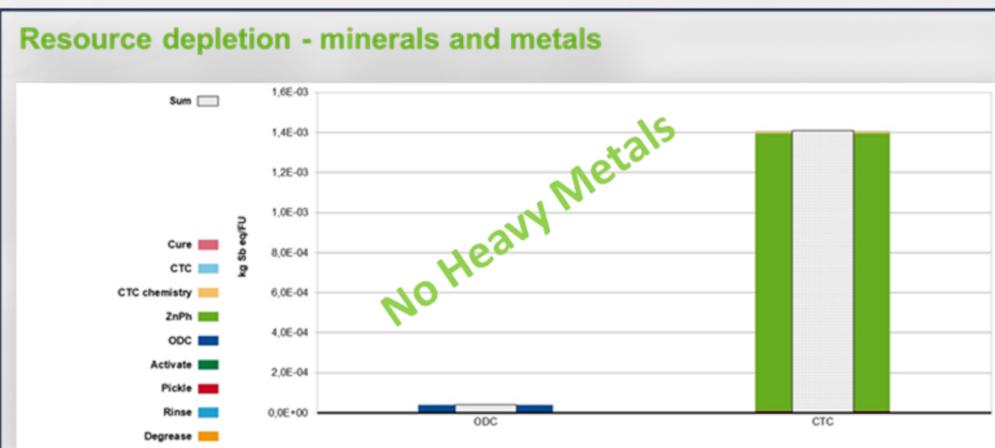
Less chemical consumption



We have an obligation to pass on clean air, water and healthy forest to our next generations

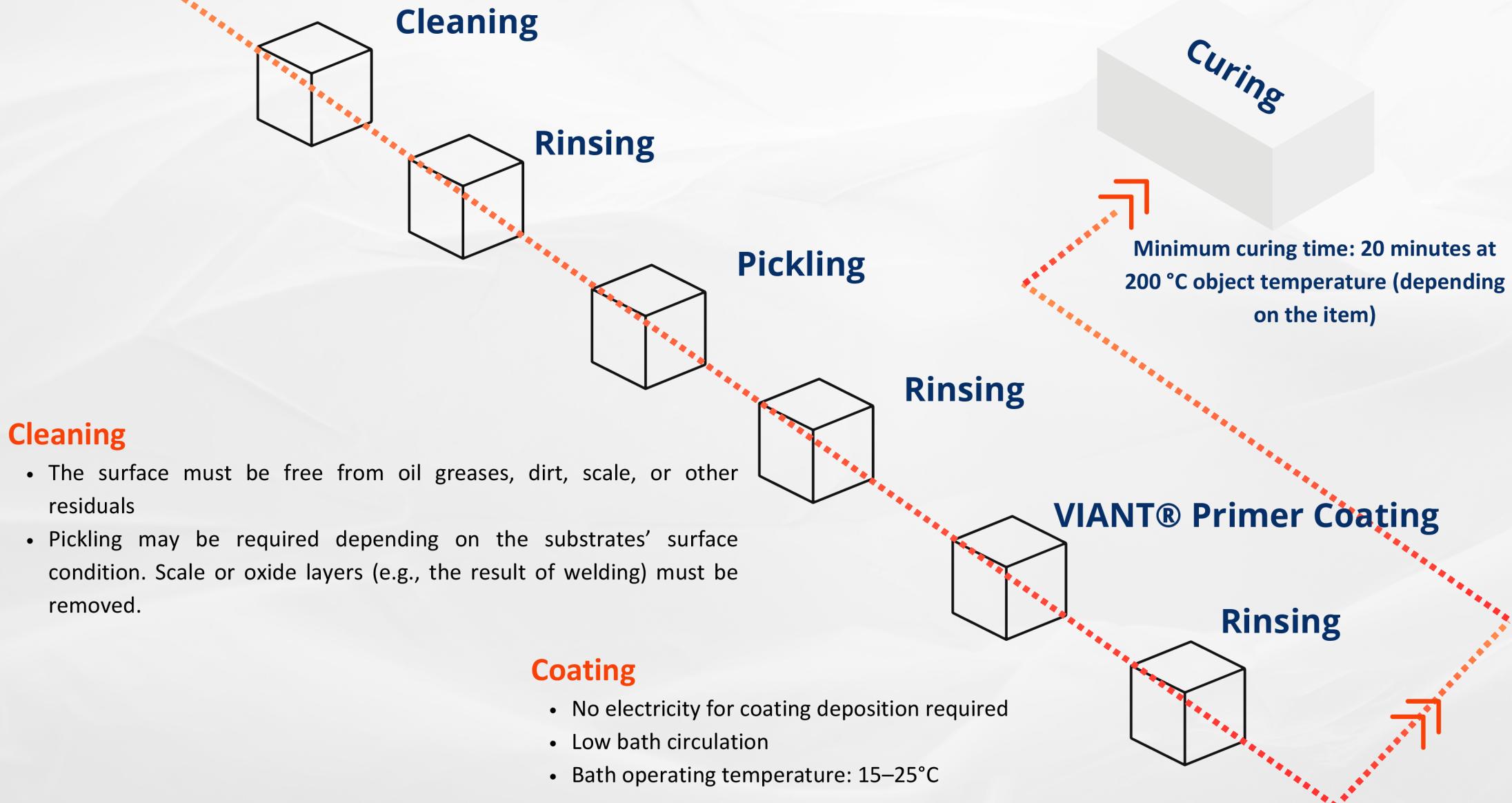
### Relative to a traditional PT/CED process

- Overall Environmental Impact → 55% reduction
- Climate Change impact (CO2) → 45% reduction
- Water Usage (with ultrafiltration) → 70% reduction
- Electricity Usage → 50-75% reduction
- Process footprint → 30-40% reduction
- Powder Paint Topcoat Usage → 20% reduction

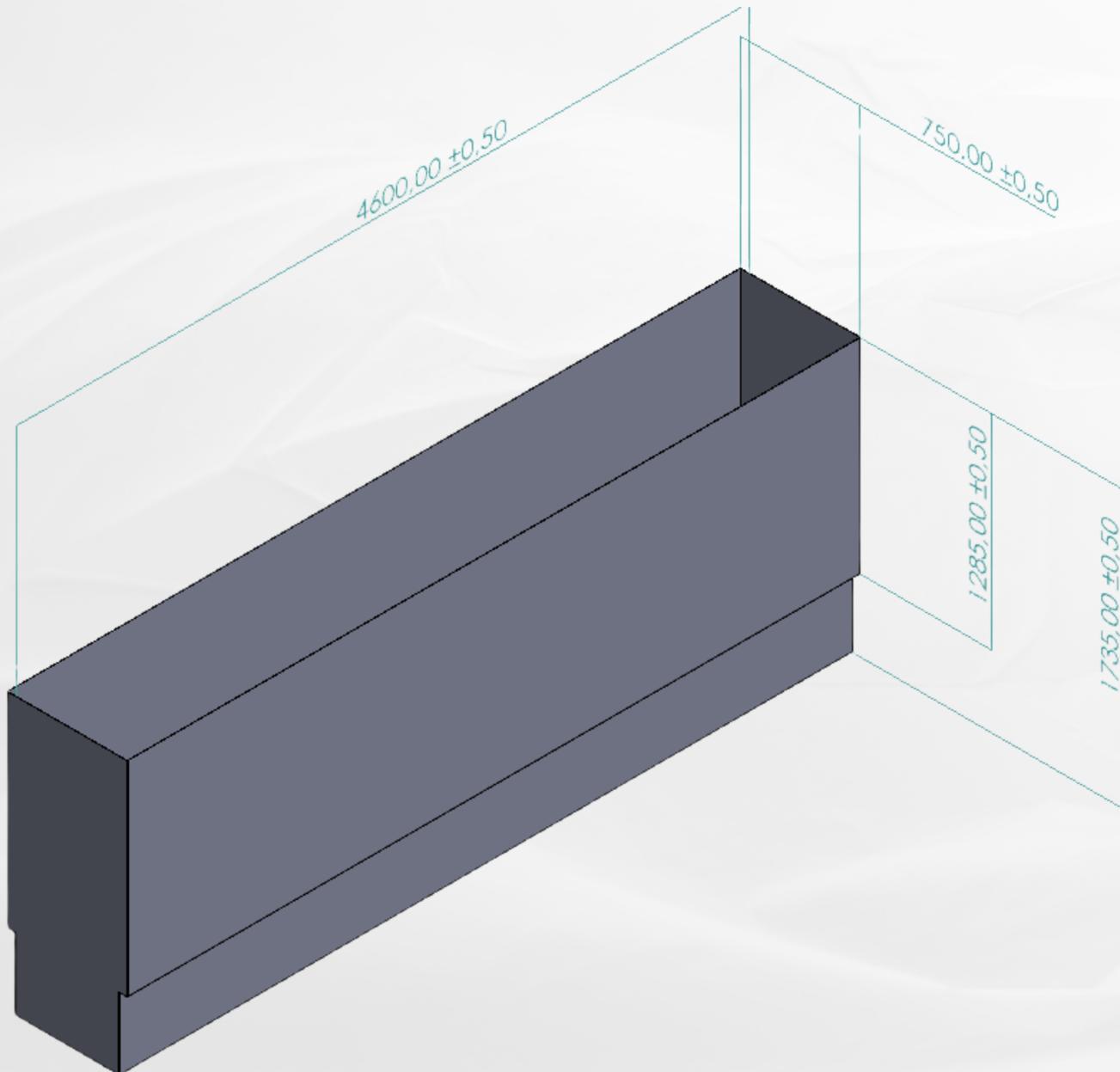


Forrás: Eco-Efficiency-Analysis of steel coating with low UV stability, Dr. Peter Saling, CDS/S, April 2019

# The VIANT® coating process



# VIANT® tub size ranges in our company

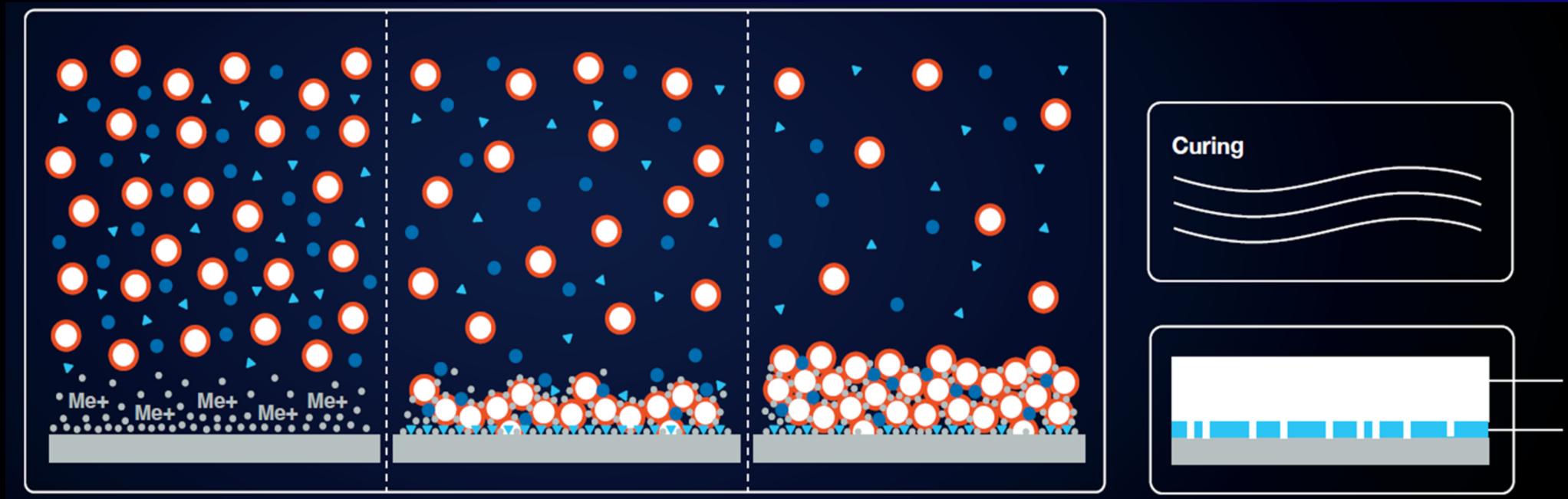


VIANT

<b>Length:</b>	4600 mm
<b>Total height:</b>	1735 mm
<b>Top Opening Width:</b>	750 mm
<b>Top Opening Depth:</b>	1285 mm
<b>Narrowed Bottom Section Width:</b>	650 mm

# VIANT® Mechanism

The smarter way to corrosion protection



**PHASE 1:** Dissolving metal ions due to acidic pH of the coating chemical

**PHASE 2:** Primer paint deposition, triggered by metal ions

**PHASE 3:** Forming of the wet coating layer

**PHASE 4:** Dry coating film after curing

○ Agent

● Binder, solids

● Promoter

▲ Accelerator Adhesion

■ Metal/Substrate

● Dissolved metal ions

# Corrosion resistance with VIAN<sup>®</sup> technology and powder coatings

Corrosivity category	Interior	Exterior	Humidity level	Chemical/Polution/ Salinity level	Expected Corrosivity	Durability	Protection period (years)	ISO 9227 NSST** In hours
C1	Heated buildings with clean atmospheres e.g. offices, shops, schools, hotels							
C2	Unheated buildings e.g. storage facilities, sport halls	Rural areas				Low	<7	-
						Medium	7-15	-
						High	15-25	-
						Very high	>25	480
C3	Production hall with high humidity and air pollution e.g. laundries, dairies, food processing plants	Industrial and inshore areas with low salinity				Low	<7	120
						Medium	7-15	240
						High	15-25	480
						Very high	>25	720
C4	Chemical plants, swimming pools, coastal ship and boatyards	Industrial and inshore areas with medium salinity				Low	<7	240
						Medium	7-15	480
						High	15-25	720
						Very high	>25	1440
C5	Areas with almost permanent condensation and high pollution	Coastal areas with high salinity / Industrial areas with high humidity and aggressive atmosphere				Low	<7	480
						Medium	7-15	720
						High	15-25	1440
						Very high	>25	-

The ISO 12944 standard defines the parameters for the corrosion protection of steel structures. This guideline assists contractors, engineers, designers, and architects in determining the appropriate environmental classification, protective coating systems, laboratory test methods, and structural systems.

The corrosion resistance marked in orange in the table is fully guaranteed by STAL-West Zrt.'s advanced manufacturing process.

Leading companies trusting  
VIANT technology

**HITACHI**<sup>®</sup>



**Bobcat**<sup>®</sup>

**IKEA**<sup>®</sup>

**PERI**<sup>®</sup>



**KAMP COATING GROEP**

# Why choose VIANT®coating technology?

## Summary:

- Higher edge coverage
- 100% (true) internal coating
- Coating with enhanced mechanical properties (e.g., flexibility)
- Excellent compatibility with conventional powder and liquid coatings
- Environmentally conscious technology design

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