



International Quality Label for Coated Steel

# Quick Guide

Approval for **conversion layers** for chemical pre-treatments



Two-track policy

A  
Qualisteelcoat  
**CONVERSION**  
**LAYER** is  
defined by

- A specific BASE material (ST – SZ – HD)
- Corrosivity class in combination with the number of organic coatings
- The approval is ALWAYS valid for mono- and multilayer coating systems.
- Brand
- Commercial codification of the conversion layer independent of the cleaning and pickling conditions.

# Two-track policy: Track 1 or Track 2

For a specific BASE MATERIAL: ST or HD or SZ  
For a specific BRAND and CONVERSION LAYER

## TRACK 1: Positive Experience

≥3 granted license holders  
Corrosivity Class is the highest CC achieved by one of the License holders

## TRACK 2: Qualifying

ACCELERATED TESTS  
for  
1- AND 2-layer coating  
systems

# TRACK 1: Positive Experience

## REQUIREMENTS

- Worldwide  $\geq 3$  granted license holders
- Same COATING SYSTEM (ST1, ST2, SZ1, SZ2, SZ3, HD1, HD2, HD3, ...)
- Registered follow-up and traceability of pre-treatment line (BOOKLET) proofing the instructions of the suppliers are followed.  
Approved by inspector during annual inspections at coater.

## APPROVAL

- Producer of conversion layer can apply for APPROVAL
- No additional test to be done
- Annual fee to QSC Zürich for CERTIFICATE
- Automatic renewal if number of granted license holders stays  $\geq 3$
- Automation by DATABASE

# Booklet

1. General process instructions of the supplier
2. Specific user's manual for the specific licensed coater.
3. Register of values and limits.

1 and 2 in PDF uploaded in QSC-database.



# TRACK 2: Qualifying

## REQUIREMENTS

- *For the time being:*  
Positive test results according to QSC Specs. 4.1. § 4.6.
- *Future:*  
*As the NSS is a test with a poor correlation to real lifetime expectations, a new developed accelerated cyclic corrosion test with good correlation is needed.*



## APPROVAL

- Producer of conversion layer can apply for APPROVAL
- Annual fee to QSC Zürich for CERTIFICATE
- Registered by DATABASE, website

# Project: Qualisteelcoat Accelerated Corrosion Test

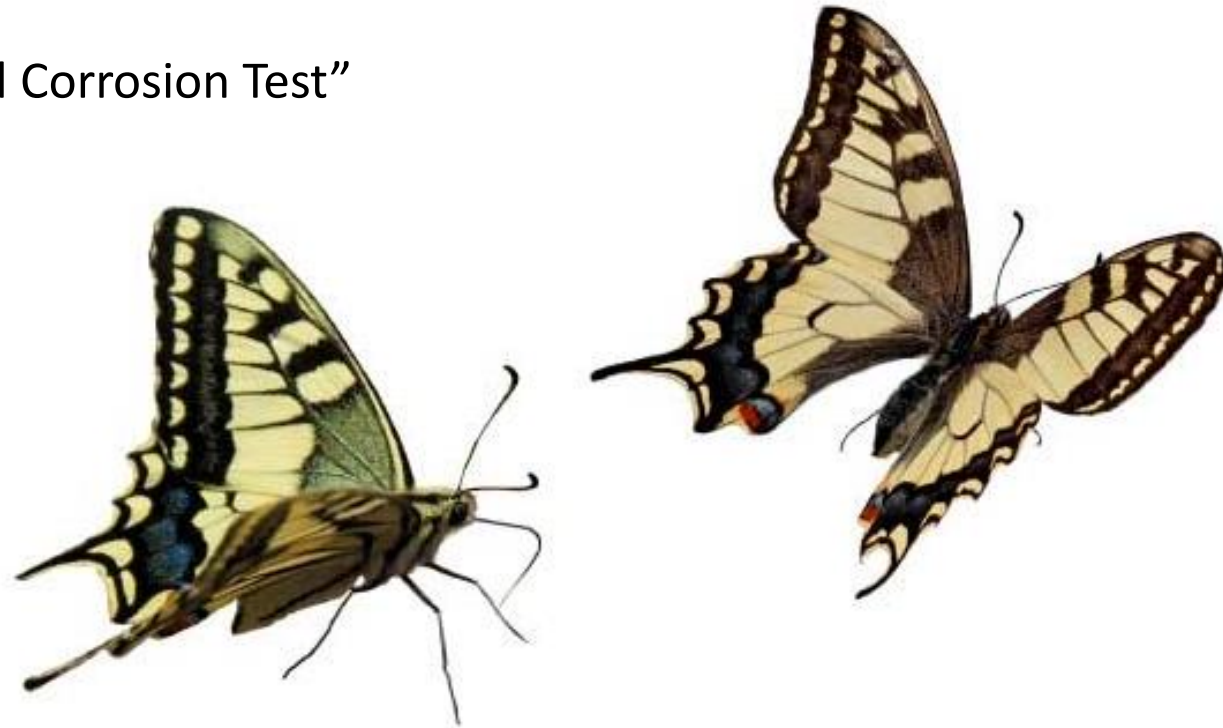


- Defining test panel type and processing of incision: knife, 3D plotter or masking tape
- Requirements: blistering, rusting, cracking, flaking, corrosion, adhesion, *delamination*
- Definition of powder coating standards
- Test battery
- Finding collaborators for mass testing: products and finances
- **Tests on candidates of TRACK 1 to verify the results according to TRACK 2.**



# Transition period

- From the **1st of January 2022**: licensees need to use an approved conversion layer. (Specs 4.1. Chapter 4)
  - OR approved according TRACK 1: “Positive Experience”,  $\geq 3$  granted license holders
  - OR approved according TRACK 2: for the time being Chapter 4.
- Toleration policy: all existing conversion layers are tolerated until the licensee makes mayor changes in the chemical pre-treatment to another conversion layer.
- Project: Definition of “Qualisteelcoat Accelerated Corrosion Test” is being executed.



# Proposal for decision TC – EC

1. TC/EC agrees that approvals will be issued for conversion layers in two possible ways: (this will be the base for an update of chapter 4, to be provided by the WG pre-treatments).
  1. Track 1: « Positive experience » as discribed in 5th slide of this Quick Guide.
  2. Track 2: Positive test results according to QSC Specs. 4.1. § 4.6.
2. TE/EC agrees to form a WG with the task to create a new QSC-test to QUALIFY conversion layers and/or coating systems to define the corrosivity class.
3. TC/EC agrees with the Toleration policy: all existing conversion layers are tolerated until the licensee makes mayor changes in the chemical pre-treatment to another conversion layer. (from 1/1/2022)