

QUALISTEELCOAT Technical Specification Version 4.1 – January 2019

Update sheet No. 1

Subject: Low voltage test

Proposal/Request: Coaters WG

QUALISTEELCOAT resolution: **Resolution No. 24 / TC 03.10.2019 – Low voltage test**
Skip Low Voltage Test from Specification. Until new specification is published, implement change via Update sheet.

Approved on: 04.10.2019 by EC

Effective from: **1 JANUARY 2020**

No. of pages: 2

Reason for modification:

The Low voltage test is voluntary according to the Specification, clause 3.6.1. This is in contradiction to clause 3.7 which says that a Low voltage tester is necessary. To avoid contradiction, the clauses are being removed from the specification.

In return, there will be integrated a comment in the FAQ on the Qualisteelcoat website how to control sharp edges and additionally a two layers system will be recommended.

**Amendments to the Specifications
(Version 4.1 – Jan. 2019):**

- Amendments in § 3.6.1, 3.7
- Delete § 6.22

3.6.1 Quality control for Powder coating systems

required test	C1 – C2	C3 – C5
dry film thickness	every order per the sampling plan	
adhesion	Standard: once per shift on 1 test panel In case of multilayer from different supplier: twice per shift on each lot on test panels type B	
direct impact resistance test	not applicable	Once per shift on 1 test panel ⁷ .
gloss	twice per shift on production parts or test panels	
determination of dew point	not applicable	every lot of parts suspected of too low temperature (base material)
assessment of stoving conditions (measurement on products representative for the coated parts in thickness, geometry and position in the oven)	actual oven temperature once per day. once per month a 4-point measurement	actual oven temperature twice per day. once per week a 4-point measurement
visual appearance	every order	
wet adhesion	not applicable	Once per shift on 1 test panel ⁸
Low voltage test ⁹		Every lot on possible sharp edges

Footnote:

⁷ For type and dimensions of test panels see chapter 4.4 Types of test panels

⁸ The wet adhesion test is not mandatory for coating systems on zinc and thermal spray metallic layers

⁹ ~~The low voltage test is only an internal test for quality control and not a pass/fail criteria on the inspected parts!~~

3.7 Laboratory and inspection equipment for finished products

All coaters must have a

- dry film thickness gauge
- gloss meter 60°
- cross cut tester or pull-off tester for adhesion
- thermometer

The following equipment is necessary if applicable according the tables in chapter 3.6

- recording instrument for object temperature and curing time with 4 measuring points
- equipment for dew-point measurement
- wet adhesion test equipment
- ~~Low voltage tester~~

6.22 Low voltage test

The low Voltage test for detecting and locating defects according to ISO 8289 is used to check that on possible sharp edges no defects occur on material for corrosivity classes C3 and above.

~~Measurement has to be done according to Method A with 9 Volt and wet sponge (Tap water)~~

Requirements:

For corrosivity classes $\geq C3$, the entire coated surface of the objects shall be covered by the coating. The low voltage test according to ISO 8289, using 9V DC, shall give no negative results on the entire coated surface.