New equipment for the surfaces department

Carlo Cozzi

Shortly before the Christmas holidays, the surface department acquired a new important laboratory equipment to carry out the corrosion tests according to the condensation principle.

It is a wet-static chamber produced by the company CO.FO.ME.GRA S.r.l. from Milan.

The model acquired in particular is equipped with:

- test chamber with a volumetric capacity of 300 liters;
- test chamber completely made of plastic material;
- automatic cyclic operation.

The need to buy this equipment has been determined by the fact that more and more frequently our customers are applying for corrosion tests in compliance with the EN 15570 standard.

The EN 15570 standard entitled "*Hardware for furniture. Strength and durability of hinges and their components. Hinges pivoting on a vertical axis*" was published in May 2008 replacing the most dated UNI 10715 of 1999.

The standard explains various methods to test the strength of hinges and among these, in fact, we find the corrosion resistance.

Unlike the old standard UNI 10715: 1999 which cited the UNI EN ISO 9227 "Corrosion tests in artificial atmospheres - Salt spray test" performed with the NSS (neutral salt spray) as test method for the verification of corrosion resistance, the current EN 15570 standard, on the other hand, mentions the EN ISO 6270-2:2017 entitled "*Paints and varnishes -- Determination of resistance to humidity -- Part 2: Condensation (in-cabinet exposure with heated water reservoir)*".

The standard describes 3 main methods:

- CH (constant humidity);
- AHT (Alternating condensation atmosphere with alternation of humidity and air temperature);
- AT (Alternating condensation atmosphere with alternation air temperature).

Thus also the following requirements of the old UNI 10715 have changed:

- after 8 hours of exposure the sample must NOT present exudative products both on visible and hidden parts
- at the end of the 24 hours of exposure, it must NOT show rust spots on both visible and hidden parts.

With the entry into force of the new standard EN 15570: 2008 the requirement is instead the following:

- no corrosive phenomenon after 3 cycles in a wet-static chamber according to the AHT method (1 cycle = 24 hours of testing).

New equipment for the surfaces department

Carlo Cozzi

The following table shows in detail the requirements expressed according to the two methods.

	UNI 10715:1999 (withdrawn and replaced)	EN 15570:2008 (replaces the UNI 10715:1999)
Corrosion test requirements	• 8 hours: absence of exudative products both on visible and hidden parts; • 24 hours: absence of rust outbreaks on both visible and hidden parts.	• with the exception of edges resulting from cutting operations, holes for inserting screws, rivet heads, molded parts in aluminum or zinc; all parts visible when the hinge is mounted must not show corrosive phenomena.

Finally, we recall that the corrosion test according to the condensation method can also be used on other components different from hinges; in fact it is applicable on all samples protected by paints or varnishes that are exposed in damp environments during their use.

Therefore, from 2018 it will be possible to request to Catas the corrosion resistance test according to the condensation method.
For those who use the MyCatas portal for the creation of web orders, the code to be entered is 16.014, specifying the method according to which the sample has to be tested.

For info:
Carlo Cozzi
tel: +39 0432 747264
e-mail: cozzi@catas.com

Claudio Caon
tel: +39 0432 747224
e-mail: caon@catas.com