

KES

Testing Method for Corrosion on Bare Steel Sheet

KES T – L244

(EST.) 1989 – 06 – 30

Contents

1. Scope of Application
2. Purpose
3. Testing Device
4. Testing Sample
5. Testing Method
6. Data Process
7. Report and Archive
8. Accuracy
9. Evaluation Standard

Additional rule

Appendix



1. Scope of application

This standard shall specify testing method for corrosion of bare steel plate used in our company.

2. Purpose

The purpose of this test shall be to measure corrosion of bare steel plate for guaranteeing corrosion of tube in a car and developing new steel plate.

3. Testing device

Salt-water sprayer, uniform temperature and humidity controller and drier are required to hasten corrosion. Alternatively, complex corrosion testing machine is required that can perform the functions done by above three machines. And the followings are also required : Beaker for eliminating rust, wire brush, point-micrometer for measuring weight reduction due to corrosion and the scale that can measure 10^{-3} g.

4. Testing sample

4.1 Material

The material for this test should be inner or outer steel plate used for a car or developing steel plate for future application.

4.2 Size

Size of test sample is 70 mm by 150 mm. In case of particular change, consult the testing department of our company.

4.3 Testing sample

Clean 70 mm by 150 mm testing sample up with acetone, measure the weight to 10^{-3} g.

After that, mask bottom and edge with seal tape as shown in figure 1.

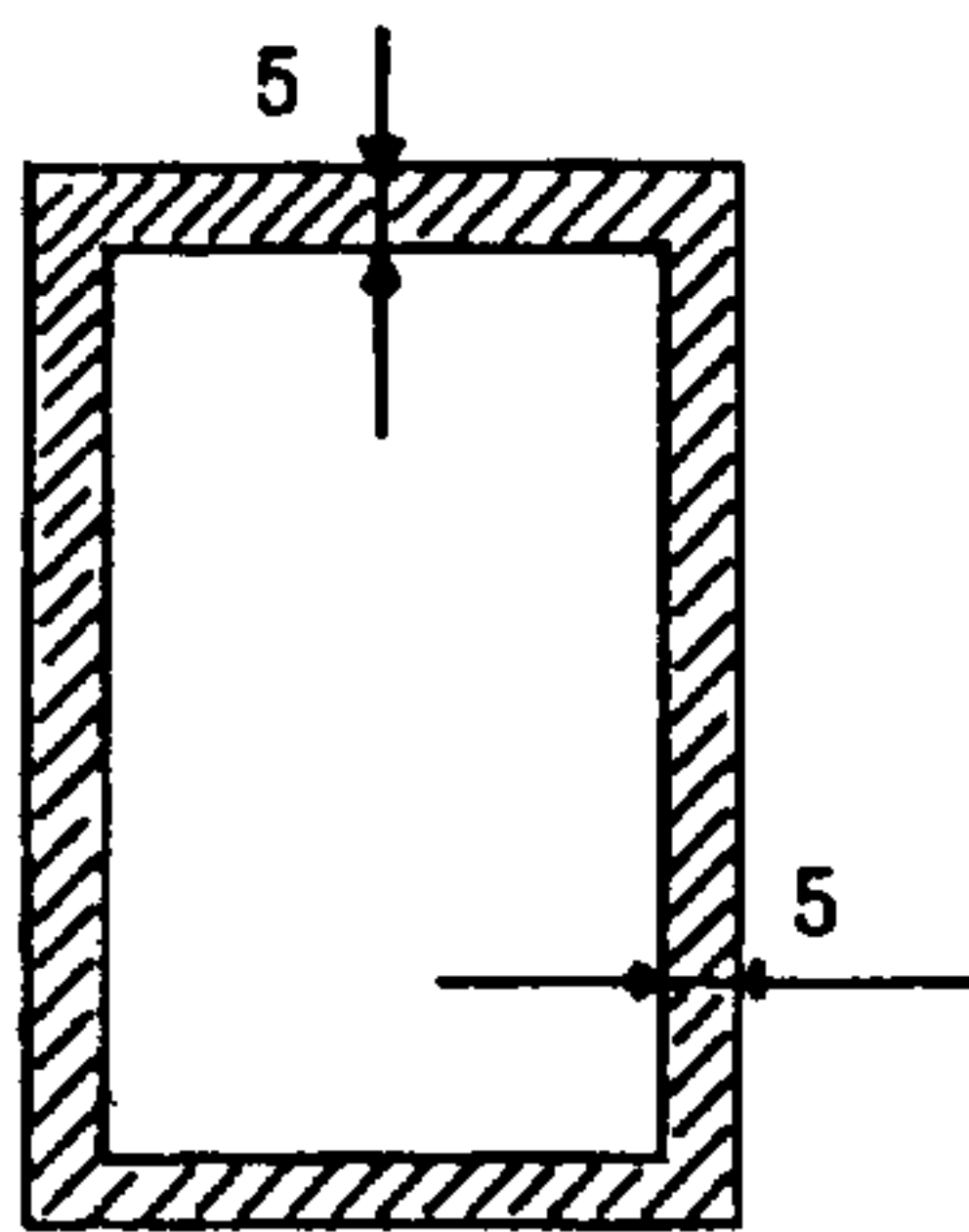


Figure 1 : Sample for corrosion test

5. Testing method

Mode (KCT – I IH) in table 1 is performed with manual test in which accelerating corrosion test are carried out in each salt-water sprayer, drier and humidifier and sample is moved manually in each cycle. Mode (KCT – II M) in table 2 is performed with automatic test in which all the cycle are carried out in one testing machine.

Table 1 : Manual accelerating corrosion test mode (KCT - II H)

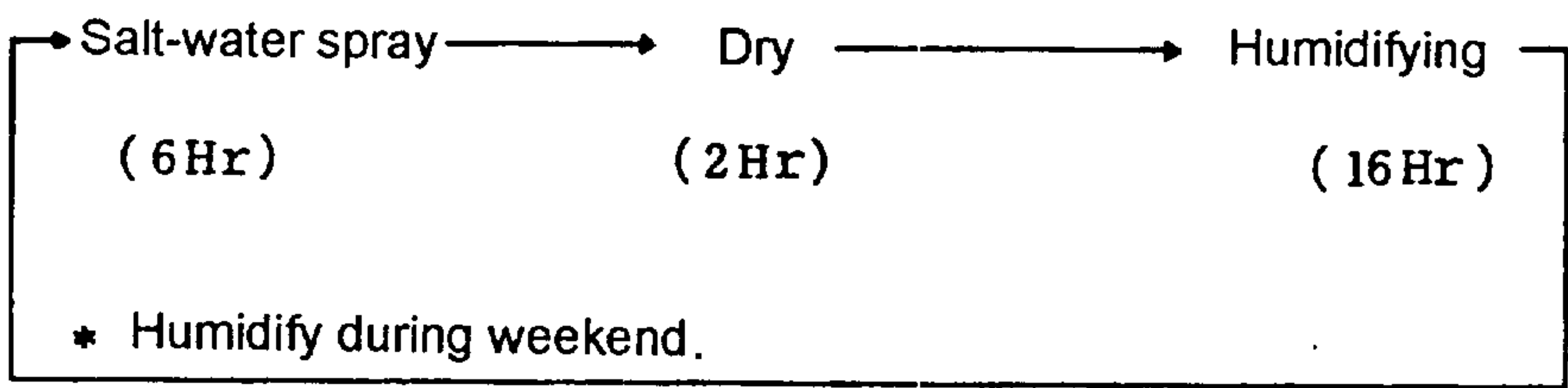
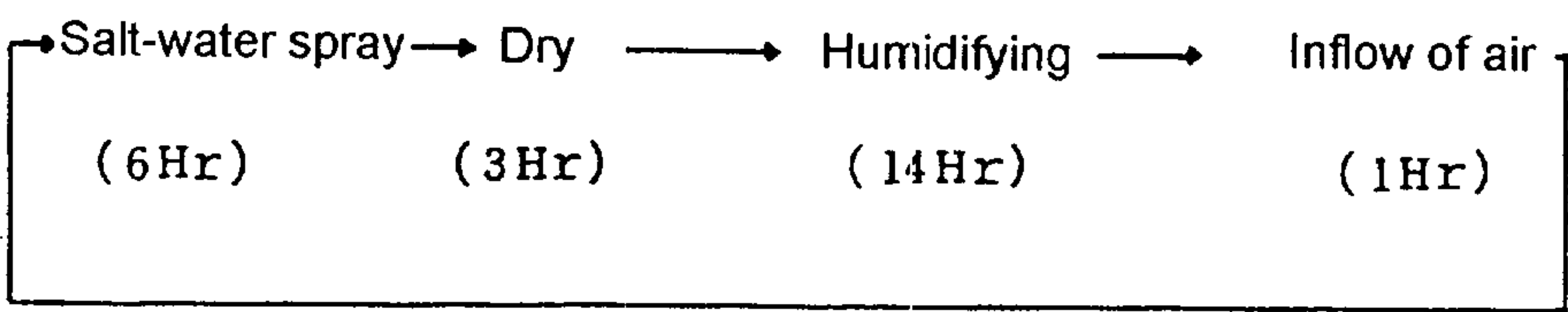


Table 2 : Automatic accelerating corrosion test mode (KCT - II M)



5.1 Accelerating corrosion test

5.1.1 Salt-water Spray Test (S.S.T)

S.S.T follow KES T – K030 , and spray 5 % NaCl solution at 35 °C . Check