



Condensation test 31-10-2018



Purpose:

The purpose of this test is to test RZ-Ecoseal with regard to condensation. The heat transfer rate of RZ-Ecoseal (rubber-containing substances) should slow down the condensation. However, it has never been tested for this purpose. This test was carried out with water of 0 ° C and steam of ± 90 ° C.

The test setup:

The parallel tubes are at an angle of ± 30 °. The 2 tubes $\varnothing 15$ copper with and without RZ-Ecoseal run parallel at a distance of 135 mm.



Fig. 1



Fig. 2

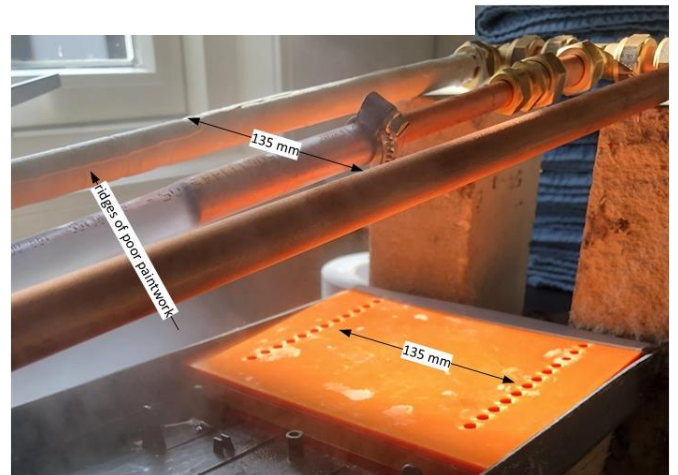


Fig. 3

A dropper was placed on both tubes at the same distance to let the condensate drip into the measuring cups (Fig. 2).



Fig. 4

The cold water (0 ° C) is kept at temperature by adding ice (Fig. 4). The steam generator blows steam (90 ° C) through 2 rows of holes under both tubes (distance 135 mm) (Fig. 3 & 5).



Fig. 5

Performance.

The water pump was switched on to cool the tubes (Fig. 4). The time started when the steam generator started working (Fig. 5). The test did run for 30 minutes.

Result.

After 30 min:

Measuring cup 1 (Fig.6):

Condensed copper, untreated, > 15ml condensate collected.

This is minimal because the condensation on the copper sometimes went so fast that several drops of condensation did not reach the measuring cup

Measuring cup 2 (Fig.6):

Condensed copper, treated with RZ-Ecoseal, < 01ml.

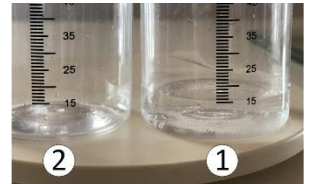


Fig. 6

Conclusion:

The influence on condensation is great. The copper tube treated with RZ-Ecoseal in this test delayed condensation by a factor of 150. Even on the poorly painted end (Fig. 3&4) of the copper tube, shows an almost identical reaction. RZ-Ecoseal stops condensation.



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