

DETERMINATION OF YELLOWING OF PVC HEAT CURING
SEALERS ON ELECTROCOAT

Application

This method is used to determine the yellowing of PVC heat curing sealers when applied on production electrocoat.

Apparatus Required

Test Panels

Steel body skin panels, 105 x 190 mm or similar.

Prepare in accordance with FLTM EU-BI 020-01C except 20 mm of 1 side without electrocoat.

Electrocoat must be approved production material (ASL) of the plant where the sealer is intended to be used.

Mechanical Convection Oven

Capable of maintaining a temperature of 190 +/- 2 °C.

Jar with Cover

Suitable to take up prepared specimens.

Conditioning and Test Conditions

All test values indicated herein are based on material conditioned in a controlled atmosphere of 23 +/- 2 °C and 50 +/- 5 % relative humidity for not less than 24 h prior to testing and tested under the same conditions unless otherwise specified.

Procedure

1. Wrap up with aluminum foil 2 electrocoat panels, 1 upon the other and separated by a heat resistant spacer of 1 mm thickness.
2. Replace the panels into the oven and bake according to relevant Material Specification.

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2000 11 14	Revised	Editorial – no technical change A. Cockman
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3. Remove the panels from the oven and after conditioning for 1 h at 23 +/- 2 °C remove the aluminum foil.
4. Apply on each panel a bead of the sealer (20 mm wide and 3 mm thick) across the coated and uncoated surface.
5. Place the specimens in the oven and bake according to FLTM EU-BV 050-05, table 2 or according to relevant Material Specification.
6. Remove the specimens in the oven and condition at 23 +/- 2 °C.
7. Coat the specimens by spraying with white production enamel (30 – 40 microns) according to SKM-98J9552-A.
8. Allow specimens to stand for a flash time of 10 minutes and then cure in the oven according to FLTM EU-BV 050-05, table 3 or according to relevant Material Specification.
9. Condition at 23 +/- 2 °C and hang the specimens in the jar filled with 10 mm water level - without contacting the water.
10. Place the closed jar in the oven for 14 d at 40 °C.

Evaluation

Examine specimens for yellowing as required by the relevant Engineering Material Specification.

Chemicals, materials, parts, and equipment referenced in this document must be used and handled properly. Each party is responsible for determining proper use and handling in its facilities.