

Reference test panel, type 2, according to EN ISO 3452-3

Using instruction

1. Field of application

Reference test panel type 2 is being used for routine assessment of the system performance of both fluorescent and colour contrast penetrant facilities and open containers. The difference between the state of action compared to the state of delivery will be shown. The test is carried out at the start of each work period.

2. Structure of the test panel

The reference test panel type 2 is rectangular in shape with dimensions of 155 x 50 x 2.5 mm. The base material is a stainless steel plated with a layer of nickel of 60 µm thickness. The nickel layer is plated with a thin layer of hard chromium of 0.5 µm to 1.5 µm thickness. Five star-shaped defects of 3.0 to 5.5 mm diameter have been artificially produced in this layer.

The five defects are uniformly placed according to their sizes. In order to check washability (visual assessment of the excess penetrant removal) the test panel got on the artificial defected side four adjacent areas of 25 x 35 mm dimension with a roughness of Ra = 2.5 µm, Ra = 5 µm, Ra = 10 µm and Ra = 15 µm. The smallest defect is located next to the area showing the smallest roughness.

3. Application

The standard EN ISO 3452-1:2013 has to be considered while doing the test. The penetrant has to be applied all over the test surface of the reference panel. The area to be tested is the one with four fields of roughness and five artificially produced defects. The excess penetrant removal depends on the type of penetrant. The reference panel is used in the same conditions as the pieces to be tested. Developer will be applied uniformly and thinly after drying the testing area.

4. Post cleaning

- Penetrant residues have to be removed;
- Developer has to be removed by rinsing with water;
- Dry test panel
- The panel can be cleaned by solvent or other remover between the tests, provided this will not lead to an alteration of the crack areas.

5. Storage

The test panels may be stored in a protective envelop to prevent scratching, twisting and any mechanical or thermal shock.

6. Control test in annual intervals

Depending on the use, the indicator ability of the reference test panel is subject to changes. In accordance to EN ISO 3452-1:2013, a yearly control test has to be done.

The MPA executes this control test. After successful control test a new test report will be issued by MPA.

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