

**PAINTS AND SIMILAR PRODUCTS  
PITTING LIMIT**

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**NO USE RESTRICTION***This is a translation, the French original shall be used in all cases of litigation**Date of translation : 06/11/2003***1. OBJECT AND FIELD OF APPLICATION**

The object of this test method is to determine the minimum thickness of a film of product at which the first pitting may be observed.

**2. PRINCIPLE**

A coat of the product of increasing thickness is deposited onto a horizontally positioned metal substrate. The minimum thickness of paint deposited at the location where the first pitting is observed is determined.

**3. EQUIPMENT**

- Steel sheet plate 300 x 200 x 0,9 mm for example.
- Equipment for application.
- Ventilated oven controlled from 20 to 250°C to within 2°C.
- Thickness measuring equipment (test methods D25 1350 and D25 1378).
- Abrasive paper.
- Chronometer.
- Product prepared according to test methods D55 1016 and D55 1339.
- Spraying booth with forced air.

**4. METHOD OF OPERATION**

- If necessary, sand the under-coat according to the specified range of operations.
- Apply a single coat of the diluted product on the sample held horizontally.
- Pre-dry or not according to the specified range of operations.
- Apply a second single coat of product, offset towards the right, approximately 35 mm from the left edge of the test specimen, then a third coat offset approximately 35 mm from the second, and so on, in offset coats every 35 mm. The thickness of the dry film on the right side of the plate shall be approximately 80 micrometres (From the 2<sup>nd</sup> coat, there is no flash-off between the coats). See fig.1.  
After the last coat, pre-dry or not according to the range of operations, with the plate being kept horizontal.
- Stove the plate in a horizontal position according to the stoving shown in the specifications.
- Allow to cool at ambient temperature for a minimum of 2 hours.
- Record the start of pitting (standard B15 5020 defines the defect).
- Measure the thickness at the first pitting marks. E2 shall be this thickness.
- Remove the paint film to be tested with very fine abrasive paper until the previous coat is visible (see sketch figure 2).
- Measure the remaining thickness. Let E1 be this thickness.

**Note :**

- In the case of a primer coat of paint application, proceed in the same manner, but instead of measuring the thickness of the coat underneath, the thickness of the surface treatment before application of the product to be tested is measured.

- In the case of a wet double coat (Example : pigmented base + lacquer) the element to be tested is applied 'through a gradual range', on its own or with the other product deposited at a constant thickness defined in the technical specifications or the range of operations considered. This thickness may be confirmed by a second attack with abrasive paper, as soon as the measurement of the first coat has been taken.

## 5. EXPRESSION OF RESULTS

Indicate the minimum thickness at which the first pitting occurs, i.e. :  
 $E = E2 - E1$  in micrometres.

## 6. TEST REPORT

The test report must indicate, in addition to the results obtained, operating details not specified in the method as well as any possible incidents which may have affected the results.

## Appendix

FIGURE 1

Arrangement of coats of paint

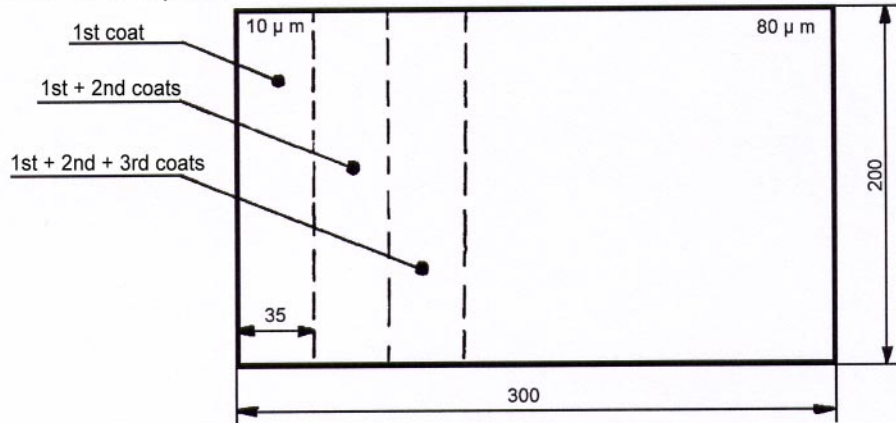
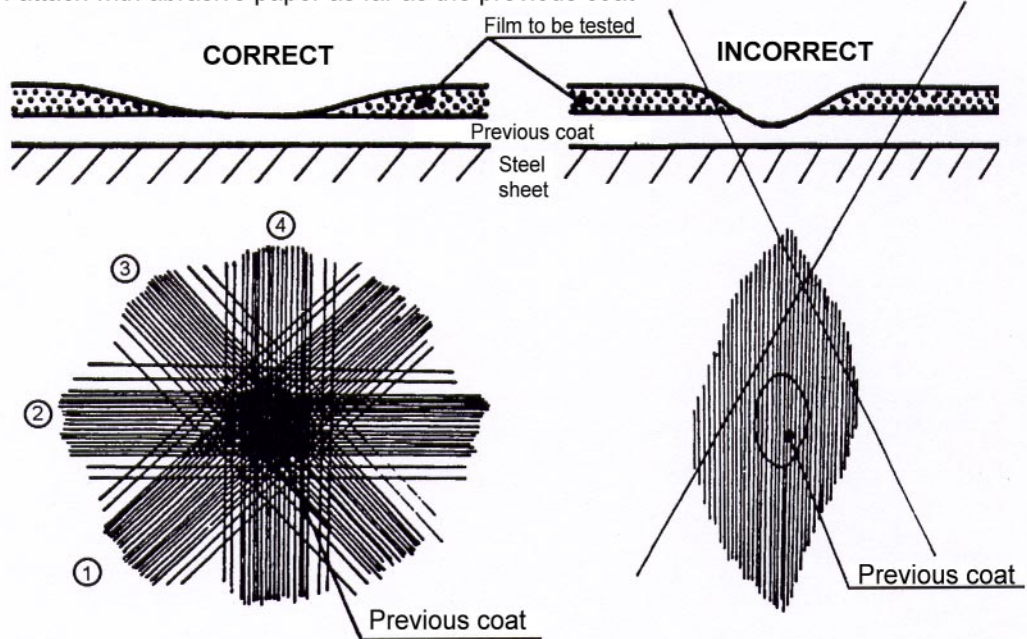


FIGURE 2

Principle of attack with abrasive paper as far as the previous coat



The attack is made by successive rotations according to 1-2-3-4 (etc.) until the previous coat is visible.

## 7. RECORDS AND REFERENCE DOCUMENTS

### 7.1. RECORDS

#### 7.1.1. CREATION

- OR : 01/01/1981 – CREATION OF THE PSA NORME.

#### 7.1.2. SUBJECT OF THE MODIFICATION

- A : 30/12/1996 – INTRODUCED INTO IDEM (*French only*).
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### 7.2. REFERENCE DOCUMENTS

#### 7.2.1. PSA DOCUMENTS

##### 7.2.1.1 Normes

B15 5020, D55 1016, D55 1339.

##### 7.2.1.2. Others

#### 7.2.2. EXTERNAL DOCUMENTS

### 7.3. EQUIVALENT TO :

### 7.4. CONFORMS TO :

### 7.5. KEY-WORDS