

**PAINT COATINGS  
AND SIMILAR PRODUCTS  
STABILITY TO HEAT (THERMAL STOVING)**

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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 : 08/09/2004***FOREWORD***This document is in technical conformity with RNUR test method n° 1379.**It must not be modified without the agreement of RNUR.***1.OBJECT AND FIELD OF APPLICATION**

The object of this method is to describe the method of operation allowing the stability of a film of paint or similar products, when baked at different temperatures in a conventional oven, to be verified.

**2.PRINCIPLE**

The test consists of checking the evolution of the shade, brightness, and hardness of a dry film baked under normal conditions: that is to say, 30 minutes at 140°C and for various different conditions including overbaking and underbaking.

**3.EQUIPMENT**

- Plates covered with paint (test method D59 1170).
- Ventilated oven from 20 to 250 °C.
- Persoz pendulum (test method D25 1298).
- Varispec brightness apparatus (test method D25 1413).
- Air conditioned enclosure (23 ± 1)°C and (50 at 55)% relative humidity.

**4.METHOD OF OPERATION**

Apply the paint to be tested according to test method D59 1170 on 5 plates covered with the production preparation.

Bake	1 plate : 30 min at 140 °C	(Test method D55 1171)
	1 plate : 1 hour at 140 °C	(Test method D55 1171)
	1 plate : 30 min at 170 °C	(Test method D55 1171)
	1 plate : 10 min at 120 °C**	(Test method D55 1171)

Place the test specimens for at least 2 hours in the air conditioned enclosure, take the brightness measurements (Test method D25 1413) then measure the hardness (Test method D25 1298).

Check the differences in shade between various plates.

\*\* For application to this plate, thinned paint will be used with the addition of a product catalyst.

## 5.EXPRESSION OF RESULTS

Indicate comparatively to the plate baked for 30 minutes at 140 °C.

- The variation in brightness.
- The variation in the shade using the GAMAIN equipment, set to French U.V. at + 6500 K (Test method D15 1343).
- The Persoz hardness of the different plates.

## 6.TEST REPORT

The test report must indicate, as well as the results obtained, the operational details not specified in the method, and any incidents likely to affect the results.

## 7.RECORDS AND REFERENCE DOCUMENTS

### 7.1.RECORDS

#### 7.1.1.CREATION

- OR : 01/09/1979 – CREATION OF THE PSA NORME. REPLACING ASSOCIATION NORME N° 1379

#### 7.1.2.SUBJECT OF THE MODIFICATION

- A: 17/03/1997 – INTRODUCTION TO IDEM (French only)
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### 7.2.REFERENCE DOCUMENTS

#### 7.2.1.PSA DOCUMENTS

##### 7.2.1.1.Normes

D15 1343, D25 1298, D59 1170.

##### 7.2.1.2.Others

#### 7.2.2.EXTERNAL DOCUMENTS

### 7.3.EQUIVALENT TO:

### 7.4.CONFORMS TO:

### 7.5.KEY WORDS

CHALEUR, ETUVAGE, STABILITE, THERMIQUES  
( Heat, Baking, Stability, Thermal)