

**LIQUID PREPARATIONS  
DETERMINATION OF THE CONVENTIONAL DRY EXTRACT**

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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 : 15/10/2003***FOREWORD**

*This document is in technical conformity with RENAULT test method D55 1017.*

*It must not be modified without prior consultation with the RENAULT.*

*It is in conformity with the agreement reached between the Normalisation Services of PEUGEOT S.A. and RENAULT in NOVEMBER 1991.*

**1. OBJECT AND FIELD OF APPLICATION**

The object of this method is to define the conditions for determining the conventional dry extract in liquid preparations. It applies, in particular, to adhesives and paints.

When the products are too viscous to enable it to be spread effectively over the base of an evaporating dish, it is appropriate to use the test method D55 1209.

**2. PRINCIPLE**

By "dry extract" is meant the ratio to the initial mass expressed as a percentage of the residue obtained by heating for a determined period, of a certain amount of product, in well defined experimental conditions, in particular, at a sufficient temperature to eliminate all elements acting as volatile products, without however causing deterioration of the product being tested.

There are two possible options : a standard evaporating dish or an aluminium dish fitted with a cover.

**Note :** *In case of dispute, only the determinations carried out with the standard evaporating dish must be taken into consideration.*

**3. EQUIPMENT****3.1. EVAPORATING DISH 70**

in conformity with the French standard NF B 35-002.

**3.2. ALUMINIUM DISH**

of internal diameter 55 to 70 mm fitted with a cover.

**3.3. FORCED AIR VENTILATION OVEN****3.4. LABORATORY BALANCE**

accurate to 1 mg.

**3.5. DESICCATOR****4. METHOD OF OPERATION****4.1. EVAPORATING DISH**

- Carry out the operation on 3 test samples of approximately 2 grams.
- Weigh to the nearest 1 mg.
- In the case of pigmented preparations, these must be properly stirred and homogenised immediately before taking the test sample.
- Weigh the evaporating dish (3.1.), let its mass be  $M_1$ .

- Place the test sample into the evaporating dish and weigh : let its mass be  $M_2$ , then spread the test sample as evenly as possible, if necessary with a diluent or a suitable solvent which is entirely volatile under test conditions. If required, allow solvents to evaporate to avoid splashing.
- When the product to be tested contains solvents which are too volatile, the evaporating dish must be kept closed during the entire weighing in order to prevent results from being falsified due to their evaporation.
- Stove in the conditions selected according to paragraph 4.3.
- Weigh after a cooling period in the desiccator (3.5.), let its mass be  $M_3$ .

#### 4.2. ALUMINIUM DISH

Operate as in paragraph 4.1. and in particular close the dish (3.2.) with its cover when the product to be tested contains highly volatile solvents.

#### 4.3. STOVING CONDITIONS

Under normal atmospheric pressure, the stoving temperatures to be used according to the documents requirements are, preferably :

A :  $105^{\circ}\text{C} \pm 2^{\circ}\text{C}$  for 3 hours.

B : Other temperatures and times specified in the documents.

C :  $165^{\circ}\text{C} \pm 3^{\circ}\text{C}$  for 1 hour 30 minutes.

### 5. EXPRESSION OF RESULTS

Express the mean of the three results calculated as a mass percentage of the test sample by means of the expression :

$$\frac{M_3 - M_1}{M_2 - M_1} \cdot 100$$

The variation between each measurement and the mean must be less than 2% of the mean value. Give the results to one decimal place.

### 6. TEST REPORT

As well as the results obtained, the test report must indicate :

- the reference to this test method,
- the operating mode selected (evaporating dish or aluminium dish),
- the stoving conditions (A or B or C),
- the precise conditions of test sampling,
- the type and quantity of solvent used, if any,
- the conditions of high consistency preparations,
- the operating details not specified in the method as well as any possible incidents likely to have affected the results.

## 7. RECORDS AND REFERENCE DOCUMENTS

### 7.1. RECORDS

#### 7.1.1. CREATION

- OR : 01/03/1980 – CREATION OF THE NORME

#### 7.1.2. SUBJECT OF THE MODIFICATION

- B : 17/12/1996 – INTRODUCED INTO IDEM (*French only*).
- C : 28/11/1997 – CORRECTION TO VERSION INTRODUCED INTO IDEM (*French only*).

### 7.2. REFERENCE DOCUMENTS

#### 7.2.1. PSA DOCUMENTS

##### 7.2.1.1 Normes D55 1209

##### 7.2.1.2. Others

#### 7.2.2. EXTERNAL DOCUMENTS NFB35-002(10/1973)

### 7.3. EQUIVALENT TO : REND55 1017

### 7.4. CONFORMS TO :

### 7.5. KEY-WORDS