

**PAINTS AND SIMILAR PREPARATIONS
DILUTION RATE**

Page 1/3

NO USE RESTRICTION*This is a translation, the French original shall be used in all cases of litigation**Date of translation : 27/10/2003***FOREWORD**

*This document is in technical conformity with RNUR test method No. 1339.
It must not be modified without prior consultation with RNUR.*

1. OBJECT AND FIELD OF APPLICATION

The purpose of this test method is to determine the quantity of diluent to be added to the product to change its initial consistency to a consistency for use.

2. PRINCIPLE

- Test A consists of determining the volume of diluent necessary to change a product from its initial consistency to a consistency for use.
- Test B consists of determining the mass of diluent necessary to change a product from its initial consistency to a consistency for use.

The dilution rate shall be the ratio between the quantity of diluent and the initial quantity of paint.

3. EQUIPMENT**3.1. TEST A – CONSISTOMETRIC CUP**

(test method D55 1016)

- A 500 ml graduated flask.
- A 100 ml test tube graduated in ml.
- A chronometer accurate to 0,2 second.
- A thermometer accurate to 0,5°C.
- A 1 litre container.
- A thermostatically controlled enclosure at $23^{\circ}\text{C} \pm 1^{\circ}\text{C}$ and $50\% \pm 5\%$ relative humidity.

3.2. TEST B – SENSITIVE BALANCE

to 0,5 g

- Consistometric cup (test method D55 1016).
- A container of approximately 0,5 litre capacity.
- A chronometer accurate to 0,2 second.
- A thermometer accurate to 0,5°C.
- A thermostatically controlled enclosure at $23^{\circ}\text{C} \pm 1^{\circ}\text{C}$ and $50\% \pm 5\%$ relative humidity.

4. PREPARATION OF SAMPLES

The quantity of the concentrated sample must be sufficient to carry out three tests.

5. METHOD OF OPERATION

5.1. CONDITIONING

Before taking a measurement, leave the cup, the containers and the product in the thermostatically controlled enclosure set at the temperature of $23^{\circ}\text{C} \pm 1^{\circ}\text{C}$ for the required period of time.
The colour of the three samples taken must conform to the colour of the standard.

5.2. TEST TECHNIQUE

5.2.1. TEST A

- Measure out 500 ml of concentrated product : let this be V_o .
- Measure the product viscosity according to test method D55 1016.
- Pour the product into the 1 litre container.
- Slowly add known volumes of diluent and stir until the required consistency is obtained : let this be V_1 (test method D55 1016).
- Check that the first result is accurate by directly adding the volume of diluent.

5.2.2. TEST B

- In a previously calibrated container, weigh 100 g of concentrated product : let this be m_o .
- Slowly add the diluent and stir until the required consistency is obtained (test method D55 1016).
- Weigh again the container : let this be m .
- Subtract the mass of diluent introduced : $m - m_o = p$.
- Check that the first result is accurate by directly adding the mass of diluent.

6. EXPRESSION OF RESULTS

The dilution rates expressed in % are calculated with the following formulae :

$$\text{- Test A : by volume : } T_v = \frac{V_1 \cdot 100}{V_o}$$

$$\text{- Test B : by mass : } T_p = \frac{(m - m_o) \cdot 100}{m_o} \text{ or } \frac{p \cdot 100}{m_o}$$

7. TEST REPORT

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

8. RECORDS AND REFERENCE DOCUMENTS

8.1. RECORDS

8.1.1. CREATION

- OR : 01/10/1979 – CREATION OF THE NORME.

8.1.2. SUBJECT OF THE MODIFICATION

- A : 10/07/1997 – INTRODUCED INTO IDEM (*French only*).
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8.2. REFERENCE DOCUMENTS

8.2.1. PSA DOCUMENTS

8.2.1.1 Normes
D55 1016.

8.2.1.2. Others

8.2.2. EXTERNAL DOCUMENTS

8.3. EQUIVALENT TO :
REN1339

8.4. CONFORMS TO :

8.5. KEY-WORDS