
Paints and related materials—Methods of test**Method 302.1: Pigment content**

METHOD

1 SCOPE

This Standard sets out a method of determining the pigment content of solvent-borne and water-borne paints. It is not suitable for some paints whose resins exist as solvent-borne emulsions, such as polyvinylidene fluoride (PVDF), or for non-aqueous dispersions (NAD). The method may not be suitable for paints containing pigments and extenders of very fine particle size such as colloidal silica, carbon black and some organic pigments.

2 REFERENCED DOCUMENTS

The following documents are referred to in this Standard:

AS

1580 Paints and related materials—Methods of test

1580.102.1 Method 102.1: Sampling procedure

3 PRINCIPLE

The method involves the separation of the pigment from the vehicle by centrifugal means and is based on differences in density between the pigment and the dilute vehicle. The extracted pigment is then dried, weighed and calculated as a percentage by mass of the whole.

4 OCCUPATIONAL HEALTH AND SAFETY

During handling follow precautions for use outlined in suppliers Materials Safety Data Sheet (MSDS).

5 APPARATUS**5.1 Centrifuge**

Capable of achieving an operational centrifugal force to allow pigment segmentation.

NOTE: It is recommended that the centrifuge be explosion-proof or, alternatively, that shatter proof tubes with close-fitting caps be used to avoid spillage or vapour explosion. A centrifugal force between 10 kN to 20 kN is suitable.

5.2 Centrifuge tubes

90 mL, heavy walled glass or metal.

NOTE: Centrifuge tubes down to 25 mL capacity may be used. Where the tubes are less than 90 mL capacity, the quantities of sample and extraction solvent should be reduced accordingly.

5.3 Laboratory oven

Fan-forced ventilated, capable of maintaining a temperature of $105 \pm 3^\circ\text{C}$.