ISO 11890-2:2013-03 (E)

Paints and varnishes - Determination of volatile organic compound (VOC) content - Part 2: Gas-chromatographic method

Contents

Page

Foreword v

1 Scope 1

2 Normative references 1

3 Termsanddefinitions 1

4 Principle 2

5 Required supplementary information 2

6 Apparatus 2
6.1 Gas chromatograph 2
6.2 Sample injection system 3
6.3 Oven 3
6.4 Detector 3
6.5 Capillary column 4
6.6 Qualitative-analysis equipment 4
6.7 Injection syringe 4
6.8 Chart recorder 4
6.9 Integrator 4
6.10 Sample vials 4
6.11 Gas filters 4
6.12 Gases 4

7 Reagents 5
7.1 Internal standard 5
7.2 Calibration compounds 5
7.3 Dilution solvent 5
7.4 Marker compound 5

8 Sampling 5

9 Procedure 5
9.1 Density 5
9.2 Water content 6
9.3 Gas-chromatographic conditions 6
9.4 Qualitative analysis of product 6
9.5 Calibration 6
9.6 Sample preparation 7
9.7 Quantitative determination of compound content 7

10 Calculation 8
10.1 General 8
10.2 Method 1: VOC content, as a percentage by mass, of the product "ready for use" 8
10.3 Method 2: VOC content, in grams per litre, of the product "ready for use" 9
10.4 Method 3: VOC content, in grams per litre, of the product "ready for use" less water 9
10.5 Method 4: VOC content, in grams per litre, of the product "ready for use" less water and less exempt compounds (only required if national legislation applies) 10

11 Expression of results 10

12 Precision 10
12.1 General 10
12.2 Repeatability limit r 10
12.3 Reproducibility limit R 11

13 Test report 11

Annex A (normative) Required supplementary information 12

Annex B (informative) Examples of gas-chromatographic conditions 13

Bibliography 17