ISO 20774:2013-09 (E)

Cigarettes - Determination of carbon monoxide in sidestream smoke - Method usin g a routine analytical linear smoking machine equipped with a fishtail chimney

Contents

Page

Foreword iv

Introduction v

1 Scope 1

2 Normative references 1

3 Terms and definitions 1

4 Principle 2

5 Apparatus 2

6 Reagents 5
6.1 Standard gas mixtures 5

7 Sampling and preparation of cigarettes 6
7.1 General 6
7.2 Symbols 6
7.3 Preparation of the cigarettes for smoking 6
7.4 Selection of test portions of cigarettes 6
7.5 Marking the butt length 7
7.6 Conditioning 8
7.7 Preliminary tests before smoking 8

8 Preparation for the smoking run 8
8.1 Smoking plan 8
8.2 Preparation of mainstream and sidestream smoke traps and cigarette holders 8
8.3 Setting up the smoking machine 9
8.4 Assembly of fishtail chimney and sidestream smoke trap 9

9 Procedure for smoking run and collection of sidestream smoke 10
9.1 Preparation of fishtail chimney 10
9.2 Setting the fishtail chimney flow rate 10
9.3 Connection of sidestream smoke filter pad holders 10
9.4 Record the atmospheric conditions 10
9.5 Loading the cigarettes 10
9.6 Smoking the cigarettes 10

10 Determination of carbon monoxide 11
10.1 General principles 11
10.2 Calculation of CO yields using an off-line (bag collection) system 11
10.3 Calculation of carbon monoxide on an on-line (continuous flow) data acquisition system 12

11 Summary of other test sample calculations 13

12 Test report 14
12.1 General 14
12.2 Characteristic data about the cigarette 14
12.3 Data about sampling 15

12.4 Description of test 15
12.5 Test results 15

13 Repeatability and reproducibility 16

Annex A (informative) Smoking plans 17

Annex B (informative) Alternative procedure for CO calibration 21

Bibliography 22