ISO/TR 11827:2012-06 (E)

Textiles - Composition testing - Identification of fibres

Contents

Page

Foreword iv

Introduction v

1 Scope 1

2 Safety note 1

3 Normative references 2

4 Terms and definitions 2

5 Principle 2

6 Apparatus and preparation of solutions 3
6.1 Apparatus 3
6.2 Preparation of solutions 3

7 Techniques 4
7.1 Microscopy 4
7.2 Flame tests 6
7.3 Staining Tests 7
7.4 Solubility Tests 7
7.5 Infrared Spectroscopy 8
7.6 Thermal Analysis 12
7.7 Density measurement methods 14
7.8 Other Instrumental Methods 14

8 Examples of procedures 15
8.1 Procedure using microscopy, solubility tests and FT-IR tests (examples) 15
8.2 Procedure using solubility tests (examples) 17
8.3 Procedure using combustion tests and melting point determination (example) 19
8.4 Procedure using microscopy, FT-IR analysis and thermal analysis, case of bicomponent fibres (examples) 19

Annex A (informative) Characteristics relative to fibre identification testing 24

Annex B (informative) Photomicrographs of Fibres (Light Microscopy) 29

Annex C (informative) Scanning Electron Micrographs of Fibres 34

Annex D (informative) Solubility of fibres 42

Annex E (informative) Examples of Infrared Spectra 45

Annex F (informative) Thermal transition temperature 50

Annex G (informative) Density 54

Annex H (informative) Alphabetical index of figures 55

Bibliography 58