

Contents	Page
Foreword.....	iv
Introduction.....	v
<b>1 Scope.....</b>	<b>1</b>
<b>2 Normative references.....</b>	<b>1</b>
<b>3 Terms, definitions, symbols and abbreviated terms.....</b>	<b>1</b>
3.1 Terms and definitions.....	1
3.2 Symbols and abbreviated terms.....	2
<b>4 Principle.....</b>	<b>3</b>
<b>5 Apparatus.....</b>	<b>3</b>
5.1 Spectrophotometer specifications.....	3
5.2 Calibration of the spectrophotometer.....	4
5.3 Calibration of the UV exposure source.....	4
5.4 Monitoring of the UV exposure source.....	5
5.5 Calibration of the UVA radiometer used to monitor the test sample irradiation.....	5
5.6 Substrate/plate.....	5
<b>6 Test method.....</b>	<b>6</b>
6.1 Outline of the test procedure.....	6
6.2 Equipment calibration and validation of test plates.....	6
6.3 Absorption measurements through the plate.....	6
6.4 Sample application.....	7
6.5 Absorbance measurements of the product-treated plate.....	8
6.6 Number of determinations.....	8
6.7 Determination of initial calculated SPF ( $SPF_{in\ vitro,0}$ ), “C” value, initial UVA-PF ( $UVA-PF_0$ ), and UV exposure dose.....	8
6.7.1 Determination of initial in vitro SPF ( $SPF_{in\ vitro,0}$ ).....	8
6.7.2 Determination of “C” value.....	8
6.7.3 Determination of initial UVA protection factor before UV exposure ( $UVA-PF_0$ ).....	9
6.7.4 Determination of the UV exposure dose.....	10
6.8 UV exposure of sample plates.....	10
6.9 Calculation of UVA-PF of plates after UV exposure of the sample.....	10
6.10 Calculation of critical wavelength of plates after UV exposure of the sample.....	11
<b>7 Procedure using the spreadsheet in this document.....</b>	<b>11</b>
<b>8 Product reference sunscreen.....</b>	<b>12</b>
8.1 Formula S2.....	12
8.2 Standard P8.....	12
<b>9 Test report.....</b>	<b>12</b>
<b>Annex A (normative) Calibration of spectrophotometer and plate transmission test.....</b>	<b>14</b>
<b>Annex B (normative) Radiometer calibration to spectroradiometric irradiance procedure.....</b>	<b>18</b>
<b>Annex C (normative) Computation values: PPD and erythema action spectra and UVA and UV-SSR spectral irradiances.....</b>	<b>20</b>
<b>Annex D (normative) PMMA substrate plate surface specifications.....</b>	<b>23</b>
<b>Annex E (normative) Product reference sunscreen formulations.....</b>	<b>26</b>
<b>Annex F (informative) Statistical calculations.....</b>	<b>32</b>
<b>Annex G (informative) Definition and examples of valid results/Factor “C”.....</b>	<b>35</b>
<b>Bibliography.....</b>	<b>36</b>