

EN 16523-1:2015+A1:2018 (E)

Contents

Page

European foreword.....	4
Introduction	5
1 Scope.....	6
2 Normative references.....	6
3 Terms and definitions	6
4 Test principle.....	9
5 Collecting media	9
5.1 Gaseous collecting medium.....	9
5.2 Liquid collecting medium.....	9
6 Apparatus.....	10
6.1 Permeation cells.....	10
6.1.1 Standard permeation cell.....	10
6.1.2 Alternative permeation cells	12
6.2 Temperature controlled room, cabinet or water bath	12
6.3 Supply of gas for gaseous collecting medium (dry air or nitrogen).....	12
6.4 Liquid pump and stirrer (in case of a liquid collecting medium).....	12
6.5 Equipment for the quantitative determination of the challenge chemical or its components in the collecting medium	12
6.6 Time measuring device	13
7 Test specimens.....	13
8 Procedure.....	13
8.1 Calibration	13
8.2 A_1 Assembly of test specimens in the cells A_1	13
8.3 Test procedure	14
8.4 Calculation of results	15
8.4.1 Open loop system: Permeation rate (PR)	15
8.4.2 Closed loop system Permeation rate (PR)	15
8.5 Expression of results.....	16
8.6 Uncertainty of measurement.....	16
9 Test report.....	17
Annex A (informative) Types of permeation behaviour	18
Annex B (informative) Physical assessment of the samples.....	20
B.1 General.....	20
B.2 Visual appearance.....	20
B.3 Thickness	20
B.4 Mass.....	20
B.5 Hardness.....	20
Annex C (informative) Example of appropriate technique for the detection of chemicals	21