

ISO 4802-1:2023-12 (E)

Glassware - Hydrolytic resistance of the interior surfaces of glass containers - Part 1: Determination by titration method and classification

Contents	Page
Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Principle	4
5 Reagents	4
6 Apparatus	5
7 Sample preparation	6
7.1 Sample size.....	6
7.2 Determination of the filling volume.....	6
7.2.1 Flat-bottomed containers ≤20 mm outer flange diameter (except ampoules, syringes and cartridges).....	6
7.2.2 Flat-bottomed containers >20 mm outer flange diameter.....	7
7.2.3 Round-bottomed containers.....	7
7.2.4 Lipped containers.....	7
7.2.5 Ampoules.....	7
7.2.6 Syringes and cartridges.....	7
8 Procedure	8
8.1 General.....	8
8.2 Cleaning of samples.....	8
8.3 Filling and heating.....	8
8.4 Analysis of the extraction solutions.....	9
8.5 Test to determine whether the containers have been surface-treated.....	10
9 Expression of results	10
9.1 Determination.....	10
9.2 Classification.....	10
9.3 Distinction between containers of hydrolytic resistance container class HC _T 1 and hydrolytic resistance container class HC _T 2.....	10
9.4 Designation.....	11
10 Test report	11
11 Reproducibility	12
Bibliography	13