

# DIN ISO 4802-2:2017-02 (E)

## Glassware - Hydrolytic resistance of the interior surfaces of glass containers - Part 2: Determination by flame spectrometry and classification (ISO 4802-2:2016)

---

Contents	Page
National foreword .....	3
Nationaler Annex NA (informative) Bibliography .....	4
Introduction .....	5
<b>1 Scope</b> .....	<b>6</b>
<b>2 Normative references</b> .....	<b>6</b>
<b>3 Terms and definitions</b> .....	<b>6</b>
<b>4 Principle</b> .....	<b>9</b>
<b>5 Reagents</b> .....	<b>9</b>
<b>6 Apparatus</b> .....	<b>11</b>
<b>7 Sample preparation</b> .....	<b>11</b>
7.1 Sample size .....	11
7.2 Determination of the filling volume .....	12
7.2.1 Flat-bottomed containers ≤20 mm outer flange diameter (except ampoules, syringes and cartridges) .....	12
7.2.2 Flat-bottomed containers >20 mm outer flange diameter .....	12
7.2.3 Round-bottomed containers .....	12
7.2.4 Lipped containers .....	13
7.2.5 Ampoules .....	13
7.2.6 Syringes and cartridges .....	13
<b>8 Procedure</b> .....	<b>13</b>
8.1 General .....	13
8.2 Cleaning of samples .....	14
8.3 Filling and heating .....	14
8.4 Analysis of the extraction solutions .....	15
8.4.1 Containers of hydrolytic resistance container classes HC <sub>F</sub> 1, HC <sub>F</sub> 2 and HC <sub>F</sub> B or those known to be made from borosilicate glass .....	15
8.4.2 Containers of hydrolytic resistance container classes HC <sub>F</sub> 3 and HC <sub>F</sub> D, or those known to be made from soda-lime-silica glass .....	15
8.5 Testing to determine whether the containers have been surface-treated .....	16
<b>9 Expression of results</b> .....	<b>16</b>
9.1 Determination .....	16
9.2 Classification .....	17
9.3 Distinction between containers of hydrolytic resistance container class HC <sub>F</sub> 1 and hydrolytic resistance container class HC <sub>F</sub> 2 .....	17
9.4 Designation .....	17
<b>10 Test report</b> .....	<b>17</b>
<b>11 Reproducibility</b> .....	<b>18</b>
<b>Bibliography</b> .....	<b>19</b>