

# DIN EN 14944-2:2025-09 (E)

## Influence of cement based products on water intended for human consumption - Test methods - Part 2: Influence of site-applied cement based materials and associated non-cement based products/materials on organoleptic parameters and migration of organic substances (TOC)

---

<b>Contents</b>	<b>Page</b>
European foreword .....	6
1 Scope.....	7
2 Normative references.....	7
3 Terms and definitions.....	8
4 Principle.....	11
5 Reagents.....	12
5.1 Chlorine neutralization reagents.....	12
5.2 Waters to be used for testing.....	12
5.3 Cleaning liquids for apparatus.....	13
6 Apparatus .....	14
6.1 General.....	14
6.2 Apparatus and materials for test piece preparation (see Annexes A, B and C).....	14
6.3 Apparatus and materials for preconditioning and migration procedure.....	15
6.4 Apparatus for odour and flavour assessment .....	15
6.5 Apparatus for colour and turbidity assessment.....	15
7 Samples and test pieces.....	15
7.1 Sampling, transport and storage of samples.....	15
7.2 Preparation of test pieces.....	16
7.3 Surface area to volume ratio (S/V) for use in the test procedure .....	16
8 Pre-treatment of samples (curing and preconditioning).....	16
8.1 General.....	16
8.2 Preconditioning.....	16
9 Test procedure.....	17
9.1 General.....	17
9.2 Preparation of migration water for the assessment of odour, flavour, colour, turbidity and TOC.....	17
9.3 Control samples (blank test) .....	18
10 Determination of odour as TON and flavour as TFN .....	18
11 Determination of colour and turbidity .....	18
12 Determination of TOC and calculation of test results.....	19
12.1 Determination of TOC.....	19
12.2 Calculation of test results.....	19
13 Expression of results .....	20
14 Test report.....	20
14.1 General.....	20
14.2 General information .....	20
14.3 Information on the product .....	20
14.4 Information on the test procedure .....	21
14.5 Test results.....	22

<b>Annex A (informative) Testing and assessing organoleptic parameters and migration of organic substances (TOC) from the constituents of concrete.....</b>	<b>23</b>
<b>A.1 General .....</b>	<b>23</b>
<b>A.2 Method.....</b>	<b>23</b>
<b>A.3 Normative references .....</b>	<b>24</b>
<b>A.4 Terms and definitions.....</b>	<b>24</b>
<b>A.5 Principle.....</b>	<b>24</b>
<b>A.6 Reagents.....</b>	<b>25</b>
<b>A.7 Apparatus .....</b>	<b>25</b>
<b>A.8 Reference (or control) concrete.....</b>	<b>25</b>
<b>A.9 Sampling of constituents.....</b>	<b>26</b>
<b>A.10 Control mix, test mixes and test pieces.....</b>	<b>26</b>
<b>A.11 Concrete mixing and compacting procedure.....</b>	<b>28</b>
<b>A.12 Curing and preconditioning of test pieces.....</b>	<b>28</b>
<b>A.13 Surface area to volume (S/V) ratio.....</b>	<b>29</b>
<b>A.14 Test procedure .....</b>	<b>29</b>
<b>A.15 Test arrangement.....</b>	<b>29</b>
<b>A.16 Assessment of unapproved constituents .....</b>	<b>30</b>
<b>A.17 Test report .....</b>	<b>31</b>
<b>Annex B (informative) Testing and assessing organoleptic parameters and migration of organic substances (TOC) from the constituents of mortars.....</b>	<b>32</b>
<b>B.1 Introduction .....</b>	<b>32</b>
<b>B.2 Method.....</b>	<b>32</b>
<b>B.3 Normative references .....</b>	<b>33</b>
<b>B.4 Terms and definitions.....</b>	<b>33</b>
<b>B.5 Principle.....</b>	<b>33</b>
<b>B.6 Reagents.....</b>	<b>34</b>
<b>B.7 Apparatus .....</b>	<b>34</b>
<b>B.8 Reference (or control) mortar.....</b>	<b>34</b>
<b>B.9 Sampling of constituents.....</b>	<b>35</b>
<b>B.10 Control mix, test mix and test pieces.....</b>	<b>35</b>
<b>B.11 Mortar mixing and compacting procedure .....</b>	<b>37</b>
<b>B.12 Curing and preconditioning of test pieces.....</b>	<b>37</b>
<b>B.13 Surface area to volume (S/V) ratio.....</b>	<b>37</b>
<b>B.14 Test procedure .....</b>	<b>37</b>
<b>B.15 Test arrangement.....</b>	<b>37</b>
<b>B.16 Assessment of unapproved constituents .....</b>	<b>38</b>

<b>B.17</b>	<b>Test report.....</b>	<b>39</b>
<b>Annex C</b>	<b>(normative) Testing and assessing organoleptic parameters and migration of organic substances (TOC) from associated non-cement based products/materials .....</b>	<b>40</b>
<b>C.1</b>	<b>Introduction.....</b>	<b>40</b>
<b>C.2</b>	<b>Method .....</b>	<b>40</b>
<b>C.3</b>	<b>Normative references.....</b>	<b>41</b>
<b>C.4</b>	<b>Terms and definitions .....</b>	<b>41</b>
<b>C.5</b>	<b>Principle.....</b>	<b>41</b>
<b>C.6</b>	<b>Reagents.....</b>	<b>41</b>
<b>C.7</b>	<b>Apparatus .....</b>	<b>41</b>
<b>C.8</b>	<b>Reference (or control) concrete/mortar.....</b>	<b>41</b>
<b>C.9</b>	<b>Sampling of constituents and unapproved products.....</b>	<b>41</b>
<b>C.10</b>	<b>Control mix, test mix and test pieces .....</b>	<b>42</b>
<b>C.11</b>	<b>Concrete/mortar mixing and compacting procedure .....</b>	<b>42</b>
<b>C.12</b>	<b>Curing and preconditioning of test pieces.....</b>	<b>42</b>
<b>C.13</b>	<b>Surface area to volume (S/V) ratio .....</b>	<b>43</b>
<b>C.14</b>	<b>Test procedure.....</b>	<b>43</b>
<b>C.15</b>	<b>Test arrangement .....</b>	<b>43</b>
<b>C.16</b>	<b>Assessment of unapproved products .....</b>	<b>43</b>
<b>C.17</b>	<b>Test report.....</b>	<b>43</b>
<b>Annex D</b>	<b>(informative) Examples of typical test pieces and test conditions as a function of S/V ratio .....</b>	<b>45</b>
<b>Annex E</b>	<b>(informative) Test arrangements for site-applied cement based materials and associated non-cement based products/materials .....</b>	<b>46</b>
<b>Annex F</b>	<b>(informative) Additional procedures for testing site-applied cement based products at elevated temperature.....</b>	<b>48</b>
<b>F.1</b>	<b>General.....</b>	<b>48</b>
<b>F.2</b>	<b>Test procedure at elevated temperature .....</b>	<b>48</b>
<b>F.3</b>	<b>Control samples (blank test) .....</b>	<b>48</b>
<b>F.4</b>	<b>Expression of results .....</b>	<b>48</b>
<b>F.5</b>	<b>Reporting.....</b>	<b>48</b>
<b>Annex G</b>	<b>(informative) Discrimination between porous and non-porous coating on site applied cement based products.....</b>	<b>49</b>
<b>G.1</b>	<b>Principle.....</b>	<b>49</b>
<b>G.2</b>	<b>Apparatus .....</b>	<b>49</b>
<b>G.3</b>	<b>Materials and reagents .....</b>	<b>49</b>
<b>G.4</b>	<b>Test procedure.....</b>	<b>49</b>
<b>G.5</b>	<b>Determination of pH .....</b>	<b>50</b>

<b>G.6</b>	<b>Expression of results</b> .....	<b>50</b>
<b>G.7</b>	<b>Classification criteria</b> .....	<b>50</b>
<b>Annex H</b>	<b>(informative) Schematic description of the test procedure</b> .....	<b>51</b>
<b>H.1</b>	<b>Preconditioning</b> .....	<b>51</b>
<b>H.2</b>	<b>Production of migration water at 23 °C</b> .....	<b>52</b>
<b>H.3</b>	<b>Typical schedule</b> .....	<b>53</b>
<b>Annex I</b>	<b>(informative) Procedural tests using standard additions (positive control)</b> .....	<b>54</b>
<b>Bibliography</b>	.....	<b>55</b>