

# DIN EN ISO 22043:2023-02 (E)

## Ice-cream freezers - Classification, requirements and test conditions (ISO 22043:2020)

---

<b>Contents</b>	<b>Page</b>
<b>European foreword</b> .....	<b>3</b>
<b>Foreword</b> .....	<b>4</b>
<b>1 Scope</b> .....	<b>5</b>
<b>2 Normative references</b> .....	<b>5</b>
<b>3 Terms and definitions</b> .....	<b>5</b>
3.1 General .....	5
3.2 Parts of ice-cream freezers .....	6
3.3 Physical aspects and dimensions .....	6
3.4 Performance characteristics .....	7
3.5 Test environment .....	7
<b>4 Symbols and abbreviated terms</b> .....	<b>8</b>
<b>5 Classification and requirements</b> .....	<b>8</b>
5.1 Classification .....	8
5.2 Requirements .....	9
5.2.1 Construction .....	9
5.2.2 Materials .....	9
5.2.3 Refrigerating system .....	10
5.2.4 Electrical components .....	10
5.2.5 Operating characteristics .....	11
<b>6 Tests</b> .....	<b>12</b>
6.1 General .....	12
6.2 Tests outside test room .....	12
6.2.1 General .....	12
6.2.2 Seal test for lids .....	12
6.2.3 Test on durability of lid .....	12
6.2.4 Linear dimensions, areas and volumes .....	13
6.2.5 Net volume calculation .....	13
6.3 Tests inside test room .....	14
6.3.1 General .....	14
6.3.2 Test room conditions .....	14
6.3.3 Test packages and life-time .....	15
6.3.4 Instruments, measuring equipment and measuring expanded measurement uncertainty .....	20
6.3.5 Preparation of test ice-cream freezer .....	21
6.3.6 Test on ice-cream freezers .....	29
<b>7 Test report</b> .....	<b>34</b>
7.1 General .....	34
7.2 Tests outside test room .....	34
7.3 Tests inside test room .....	34
<b>8 Marking</b> .....	<b>36</b>
8.1 Load limit .....	36
8.2 Marking plate .....	38
8.3 Information to be supplied by the manufacturer .....	38

<b>Annex A (informative) Ice-cream freezer families</b> .....	<b>40</b>
<b>Annex B (normative) Equivalent volume calculation</b> .....	<b>41</b>
<b>Annex C (normative) TDA calculation</b> .....	<b>42</b>
<b>Annex D (informative) Test for absence of odour and taste</b> .....	<b>45</b>
<b>Annex E (normative) Performance and energy rating of ice-cream freezers</b> .....	<b>47</b>
<b>Bibliography</b> .....	<b>48</b>