

DIN EN 16838:2019-09 (E)

Refrigerated display scooping cabinets and pozzetto for gelato - Classification, requirements, performance and energy consumption testing

Contents		Page
European foreword		4
1	Scope	5
2	Normative references	5
3	Terms and definitions	5
4	Symbols and abbreviations	6
5	Requirements	8
5.1	Construction	8
5.1.1	General	8
5.1.2	Materials	8
5.1.3	Refrigerating system	9
5.1.4	Electrical components	9
5.1.5	Temperature display	9
5.2	Operating characteristics	10
5.2.1	Absence of odour and taste	10
5.2.2	Classification according to temperature	10
5.2.3	Defrosting	12
5.2.4	Water vapour condensation	13
5.2.5	Energy consumption	13
5.2.6	Specific energy consumption	13
6	Test condition	13
6.1	General	13
6.2	Tests outside test room	13
6.3	Tests inside test room	15
6.3.1	General	15
6.3.2	Test room -- General design, walls, floor and radiant heat	15
6.3.3	Preparation and general test procedures for gelato scooping cabinet and pozzetto	24
6.3.4	Temperature test	31
6.3.5	Water vapour condensation test	34
6.3.6	Electrical energy consumption test	36
6.3.7	Heat extraction rate measurement when condensing unit is remote from gelato scooping cabinet and pozzetto	36
7	Test report	43
7.1	General	43
7.2	Tests outside test room	43
7.3	Tests inside test room	43
7.3.1	General test conditions	43
7.3.2	Gelato scooping cabinet and pozzetto preparation	44
7.3.3	Temperature test	45
7.3.4	Water vapour condensation test	46
7.3.5	Electrical energy consumption test	46
7.3.6	Heat extraction rate measurement when the condensing unit is remote from the gelato scooping cabinet and pozzetto	46
8	Marking	48

8.1	Marking plate	48
8.2	Information to be supplied by the manufacturer	48
Annex A (informative) Test for absence of odour and taste		50
A.1	Preparation and testing	50
A.1.1	Ambient temperature	50
A.1.2	Cleaning	50
A.1.3	Thermostat setting	50
A.1.4	Samples	50
A.1.5	Test period	50
A.2	Examination of samples	51
A.2.1	Conditions	51
A.2.2	Evaluation	51
Annex B (normative) Data requirements for performance and energy rating of gelato scooping cabinets and pozzetto		52
B.1	Scope	52
B.2	Terms and definitions	52
B.3	Data requirements for rating of gelato scooping cabinets and pozzetto with incorporated condensing unit	53
B.3.1	General	53
B.3.2	Evaluation of DEC	54
B.3.3	Evaluation of FEC	54
B.3.4	Evaluation of LEC	54
B.3.5	Evaluation of AEC	55
B.3.6	Evaluation of DFEC	55
B.3.7	Evaluation of PEC	55
B.3.8	Other electric energy consumption	55
B.3.9	Alternate components - Effect on DEC	55
B.4	Data requirements for rating of gelato scooping cabinets and pozzetto with remote condensing unit	55
Bibliography		57