BS EN 16764:2016

BSI Standards Publication

# Soft ice cream machines — Performance and evaluation of energy consumption

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## National foreword

This British Standard is the UK implementation of EN 16764:2016.

The UK participation in its preparation was entrusted to Technical Committee RHE/19, Commercial refrigerated food cabinets (cold room and display cases).

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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Published by BSI Standards Limited 2016

ISBN 978 0 580 86695 1

ICS 67.260

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This British Standard was published under the authority of the Standards Policy and Strategy Committee on 29 February 2016.

**Amendments/corrigenda issued since publication**

| Date | Text affected |
|---|---|

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

# EN 16764

January 2016

ICS 67.260

English Version

# Soft ice cream machines - Performance and evaluation of energy consumption

Machines à glace à l'italienne - Performance et évaluation de la consommation d'énergie

Automaten für Eiskrem - Bestimmung von Leistungsmerkmalen und Energieverbrauch

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## European foreword

This document (EN 16764:2016) has been prepared by Technical Committee CEN/TC 44 "Commercial and Professional Refrigerating Appliances and Systems, Performance and Energy Consumption", the secretariat of which is held by UNI.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by July 2016, and conflicting national standards shall be withdrawn at the latest by July 2016.

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# 1 Scope

This European Standard specifies requirements and test conditions of soft ice cream machines for processing ice cream and similar frozen desserts.

It defines machines performance characteristics and energy consumption, measured under specified conditions and test methods, using a reference test mix.

This European Standard applies to the following types of soft ice cream machines: commercial ice cream, soft serve and shake freezers, which freeze and dispense frozen product (e.g. dairy, yogurt), included are conventional operation and pasteurization phase. The equipment may include separate refrigeration systems for the frozen product and fresh mix and may be either air-cooled or water-cooled.

The soft ice cream machines are evaluated for the following performance:

— maximum energy input rate, or maximum current draw,

— production capacity,

— overrun,

— initial freeze-down energy consumption and duration,

— production energy consumption,

— idle energy consumption,

— stand-by energy consumption,

— pasteurization energy consumption (if applicable).

# 2 Normative references

Not applicable.

# 3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

**3.1**
**compression type machines**
machines where the cooling is performed by means of a refrigerant liquid at low pressure in a heat exchanger (evaporator), the steam thus formed becomes a liquid by a mechanical compression higher pressure and cooling in another heat exchanger (condenser)

**3.2**
**condenser**
heat exchanger in which after compression, the vaporized refrigerant is liquefied, giving off heat to external cooling system

**3.3**
**evaporator**
heat exchanger in which, after the reduction of pressure, the refrigerant is vaporized by absorbing heat from the medium which is cooled



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