

Guidelines for Topten Public Procurers

Ice Cream Freezers

[Steffen Hepp](#), July 2021



Why follow Topten criteria?

- Topten.eu/pro (www.topten.eu/pro) is a European web portal helping buyers, professionals, public procurers and large buyers to find the most energy efficient products available in Europe. The products are selected and updated continuously, according to their high energy and environmental performances, independently from the manufacturers.
- The Topten criteria below can be inserted directly into tendering documents.
- All ice cream freezers displayed on www.topten.eu meet the criteria contained in these guidelines. Procurers can therefore use the website to check the availability and assortment of products currently on the market, which meet the [Topten selection criteria for Ice Cream Freezers](#).
- Topten.eu/pro links to national partners Topten Pro websites and was developed under the Topten Act project, supported by the European Union through Horizon 2020 programme.

How much can you save?

The category ice cream freezers, listed on www.topten.eu, includes models that

- are plug-in cabinets (remote cabinets are not considered)
- have maximum 600 litres net volume
- are static

Considering the models listed on Topten and the following assumptions, it is possible to achieve the savings indicated in the next table.

Assumptions {
 Lifetime expectation: 8 years
 Electricity cost: 0,20 €/kWh

	Topten model	Inefficient model
Type	Chest freezer	Chest freezer
Net volume (in liters)	300	291
Electricity consumption	434 kWh/year	950 kWh/year
Use cost (electricity in 8 years)	694 €	1,520 €
Savings in 8 years	54% energy / unit ⇒ 826 € / unit	

Comparing models with similar net capacity, a Topten model allow electricity savings, in 8 years, of around 826 €/unit, consuming around 54% less energy than inefficient models.

Procurement criteria

The following criteria can be inserted directly into tendering documents. The Topten selection criteria and the product lists are updated regularly. The newest versions are always available at www.topten.eu/pro.

SUBJECT: HIGHLY ENERGY-EFFICIENT ICE CREAM FREEZERS

TECHNICAL SPECIFICATIONS

1. Refrigerants

- Natural refrigerant with global warming potential (GWP) ≤ 3 .
(for example, R290/propane, R600a/isobutane, R744/CO₂)

Verification

Bidders must supply the information on refrigerant(s) used.

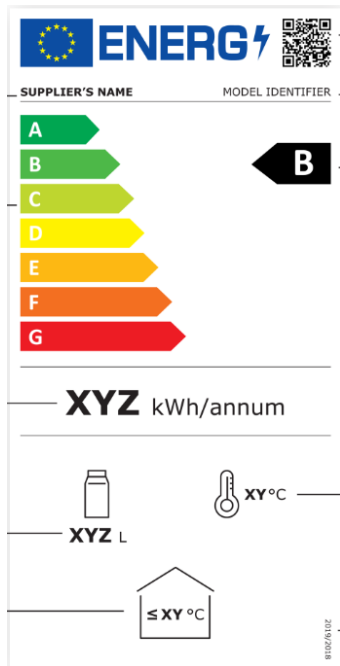
2. Energy class

- Ice cream freezers must have the **Energy class C** or better (maximum EEI of 35), declared according to European Energy Label
- Ice cream freezers with R744 refrigerant must have Energy class D or better (maximum EEI of 50)

Verification

Bidders must supply the energy label and technical data according to EU Regulations No. 2019/2018 and No. 2019/2024.

BACKGROUND INFORMATION



EU Regulation No 2019/2018	
Energy efficiency class	Energy efficiency index
A	EEI < 10
B	10 ≤ EEI < 20
C	20 ≤ EEI < 35
D	35 ≤ EEI < 50
E	50 ≤ EEI < 65
F	65 ≤ EEI < 80
G	EEI ≥ 80

Since 1st March 2021, the EU energy label for refrigerating appliances with a direct sales function (incl. ice cream freezers) is mandatory. It shows:

- the energy efficiency class;
- the annual electricity consumption in kWh per year;
- the net volume of chilled compartments in liters;
- the highest average compartment temperature of all compartments frozen
- the warmest ambient temperature

Document: EU regulation No. 2019/2018.

Ice cream freezers with an EEI > 80 are not been permitted on the market since March 2021. Class F and G products will be banned as of September 1st 2023.

NOTES ON IMPLEMENTATION

To increase savings and reduce environmental impact, procurers should evaluate life cycle costs when tendering for ice cream freezers. Thus, it is advisable to include in the tender a costing exercise - even if simple - for the product life cycle costs.

Example of a breakdown costs table, to be filled in by bidders:

	Information details	Different unit costs in € (excluding tax)	Total cost in € (excluding tax)
Delivery			
Installation			
Use	Energy consumption in kWh/year x n° units	Electricity cost: 0,20 €/kWh*	
Maintenance			
Recycling and disposal			

* Example of how use costs can be determined.

** This figure is just an example. The procurer can use the average electricity price paid during the last 2 or 3 years, and also include subscription fee and taxes.

Advice and support

If you would like further assistance in using the information presented here in your own procurement actions or more information on [Topten Pro](#) contact your national Topten team (find it on [Topten.eu](#)).

The European Commission's [Green Public Procurement](#) website contains valuable legal and practical guidance together with procurement criteria for a range of commonly procured products and services.



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