## Professional storage refrigerators and freezers: policy measures should be guided by the Best Available Technology

The Topten product lists show the best storage cabinets available on the market. These BAT products show how the planned Ecodesign and Labelling regulations can be improved:

- 1. **Planned Energy Label can be more ambitious**: Current products already reach the classes A (all categories) and A+ (chilled counter and frozen vertical). In order to have empty top classes, stimulating future improvements, more ambitious class thresholds are needed.
- 2. Market ready for natural refrigerants: All one hundred models in the Topten product lists use natural refrigerants with a Global Warming Potential < 4 (propane/ R290 and isobutane/ R600a). The professional storage cabinet market is ready to move away from high-GWP refrigerants like R134a (GWP = 1300) or R404A (3300). It is important that the Ecodesign and Labelling regulations support this market transformation, because the revised F-gas regulation alone will have no effect until 2020 / 2022 and offers loopholes:</p>
  - a. Explicitly ban refrigerants with GWP>150 for professional storage cabinets by 2017.
  - b. Introduce a 10% malus on energy consumption for refrigerants with GWP>150. Bonuses are not recommended because of the negative incentive for efficiency.
  - c. Indicate on the label: "climate-friendly refrigerant" (GWP<150) and "refrigerant hazardous to the climate".

Brand	Gram	Liebherr	Desmon	Desmon	Desmon	Inefficient model
Model	COMPACT K 210 RG	FKUv 1610	PTGM4	PTGM3	PTGM2	Counter refrigerator
Other models	COMPACT K 210 LG					
Electricity costs (€ in 8 years)	372	432	788	745	745	972
Net volume (liters)	104	130	530	376	246	150
Storage temperature (°C)	+2°C to +12°C	+1°C to +15°C	-2°C to +8°C	-2°C to +8°C	-2°C to +8°C	+2°C to +12°C
Energy class	A+	A+	Α	Α	A	В
Energy index	15.1	17.0	20.9	22.6	25.7	37.3
Energy (kWh/year)	310	360	657	621	621	810
Refrigerant	R600a	R600a	R290	R290	R290	R134a
Cooling	Recirculating air	Recirculating air	Recirculating air	Recirculating air	Recirculating air	Recirculating air
Ambient temperature (°C)	+16°C to +43°C	+10°C to +43°C	→16°C to +43°C	+16°C to +43°C	+16°C to +4 <mark>3</mark> °C	+16°C to +43°C
Dimensions W/D/H (mm)	595 x 640 x 830	602 x 611 x 830	<mark>243</mark> 0 x 700 x 850	1945 x 700 x 850	1460 x 700 <mark>x</mark> 850	600 x 600 x 830
Countries available	EU	EU	UK, DE, CH	IT, FR, ES, GR, UK, DE, CH	IT, FR, ES, GR, UK, DE, CH	EU
10/04/2014	Natural refrigerants			Class A and A+ models		

Product list on Topten.eu: Storage Counter Refrigerators

- 3. **Unjustified exemption for refrigerator-freezers**: They too should be covered by the Energy Label and minimum efficiency requirements. The calculation formula can be similar to the one for domestic refrigerator-freezers.
- 4. **Quick introduction:** Each delay reduces the measures' energy saving effect. The Label and Ecodesign requirements should not be postponed to 2016.

## More information

- Best products of Europe: <u>www.topten.eu</u>
- Policy recommendations for professional storage cabinets: <u>http://www.topten.eu/?page=professional-storage-refrigerators-2&fromid=</u>
- Contact: <u>eva.geilinger@topten.eu</u>