

# TopInfo

Viessmann cold rooms - TÜV Süd\* confirms excellent energy and insulation efficiency



**Twelve good reasons to choose Viessmann cold room systems:**

- Low energy consumption
- Very low life cycle costs
- High packaging standard for keeping goods safe and transporting them securely
- High level of pre-assembly
- Quick and easy installation
- Floor loading meets the high requirements of more than 100%
- Viessmann doors- high level of pre-assembly and excellent insulation value
- High hygienic standard
- High environmental management standard
- Recommended by experts
- High product quality- thoroughly tested
- Viessmann sets the bar for technological innovation

\* Germany's leading independent technical services corporation



Viessmann cold and freezer rooms are particularly indispensable for food production, supermarkets, retail, factories, petrol stations, transport, as well as the hospitality and hotel industry. In the pharmaceutical industry, hospitals, state criminal investigation authorities, pathology, oil industry plants, or in the fabrication of synthetic raw materials, the innovative quality products by Viessmann are here to stay.

Adapted to the stringent requirements of trade and industry, Viessmann cold and freezer rooms are ideal, thanks to their robustness, superior hygienic properties, high insulation efficiency and high user comfort.

A recent competitive comparison with nine European cold room suppliers confirmed, why Viessmann is one of the leading manufacturers of innovative cold and freezer rooms in Germany and Europe, and further demonstrated how it exceeds the industry expectations for quality and technology innovations placed on it.

Compared with the competition, Viessmann excelled in the following categories: Delivery (packaging, delivery, documentation), assembly, constructive comparison, door, floor loading, energetic comparison, operating costs after 10 years.

### Excellent energy and insulation efficiency

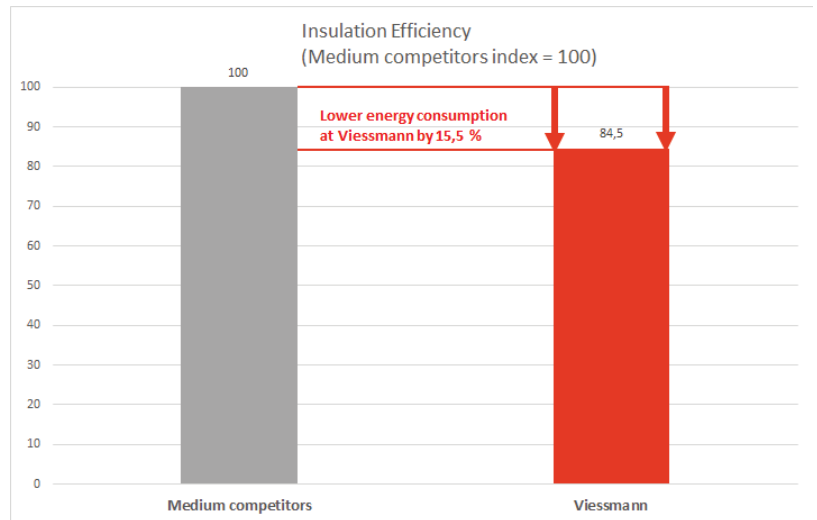
In order to ensure that models can be meaningfully and objectively compared between the different manufacturers, the size, wall thickness and features of the test cold rooms were clearly specified and tested under identical conditions, managed by the ATP test by TÜV Süd. Two trials were carried out: Determination of the overall heat-transfer coefficient (k-value) of the cold rooms using a source of heat, and determination of energy efficiency, using a source of cold.

The cold rooms from Viessmann Kühlsysteme GmbH set themselves apart with their outstanding insulation properties and the high energy efficiency this enables. On the one hand, this is supported by the results of the TÜV inspection of the measured foam insulation values (U-values), and on the other hand is also demonstrated by the recorded thermal images. The Viessman cold room with improved foam even surpassed the excellent result achieved by the previous technology.

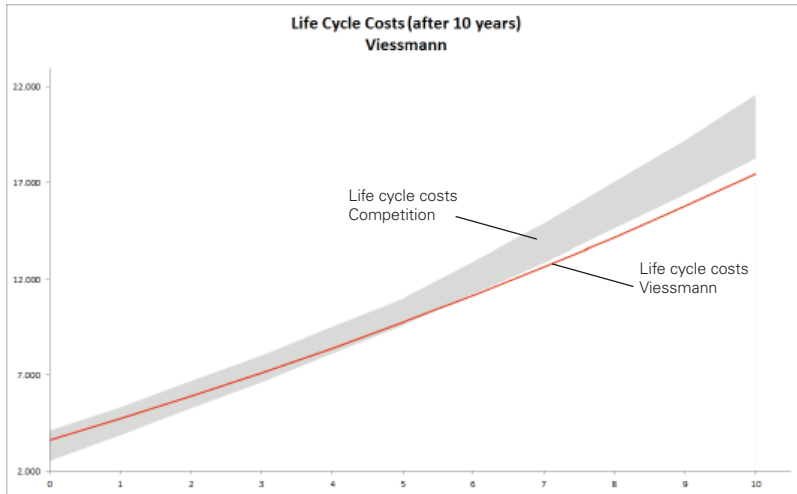
The thermal imaging conducted by TÜV Süd during operation highlights the result of the TÜV test. The pictures clearly show that the outside temperature of the Viessmann cold room is higher than the general value of the participants in the competitive comparison. This indicates that the insulation allows less cold to escape outside.

In addition, the images show significant thermal bridges in the joint areas of many competitor's cold rooms.

The corner post system showed that even these corner points represent a weak thermal point in the overall system.



Average energy consumption of the refrigeration system per m<sup>2</sup> in the cold room



Viessmann life cycle costs



Palette packaging



Elements with shrunken packaging film

**Very cheap life cycle costs**

In spite of the higher cost of acquisition the Viessmann cold room proves to be a cost-effective option thanks to its low life-cycle costs.

**High packaging standard for keeping goods safe and transporting them securely**

In direct comparison with the competition, it was found that Viessmann offers a high standard of packaging for securing goods and transporting them safely. Plastic protective corners and side protection plates ensure this. In addition, a clean shrunken packaging film gives the whole package a high level of stability. Cardboard, which is frequently used by the competition, does not have the required protective effect against collision damage. The handling of pallets is very flexible and easy. Since they can be accessed from all sides, it's also possible to load and unload them from the rear or side. Viessmann's environmentally-friendly packaging was also particularly noted.

**High level of pre-assembly**

One particularly noticeable aspect in direct comparison with how competitors deliver their goods, is that Viessmann provides its customers with a high level of pre-assembled electrical parts. For example, an LED lamp, pressure equalisation valve or thermometer is already included; and the cable channel is already foamed into the door. The wiring is completed in advance at the factory using a junction box. It just needs to be connected to the building services on site. This saves the customer time and money during installation. The Viessmann standard package includes a large amount of useful accessories. Insulators are pre-cut for walls and floors.



Control panel

**Quick and easy installation**

If you compare assembly times with the competition, Viessmann also shines with excellent results. The easy installation of the individual elements, the high degree of pre-assembly, and the unnecessary use of silicone, means that it can be installed in a much shorter time.



Cold room assembly

**Floor loading meets the high requirements of more than 100%**

The jointless and stepless underlapped stainless steel bottom of the Viessmann cold room is extremely durable and meets the highest requirements of more than 100%. The floor withstands more than the indicated or required loads. It turns out that only the right combination of pressure distribution plate and stainless steel results in reliable stability. Our floor rollover test exposed the weaknesses in competitors' floors. Non-stainless steel floors in particular lack the necessary elasticity. This leads to deformations and cracks and sometimes even causes the wooden floor to collapse and split.



Floor rollover test

**Doors from Viessmann - high level of pre-assembly and excellent insulation value**

Viessmann doors are characterised by their variety of factory-built electrical components: There is a LED lamp inside the door frame, complete with wiring connections to the junction box; the door frame heater is installed at the factory and ready for connection on site.



Viessmann revolving door



Magnetic sealing frame





SmartProtec® powder coating

**High hygiene standard**

The new antimicrobial SmartProtec® powder coating is available as standard on all Viessmann TECTO Standard and TECTO Special cold rooms on all wall, floor and ceiling elements interior and exterior surfaces, and this serves to further raise the high standard of hygiene. Viessmann cold room hygiene technology is raising hygiene to a new level. SmartProtec® performed outstandingly in the product tests and combated 20 percent more microbial strains (including black mould) than its predecessor SilverProtec®, which already had excellent antibacterial properties.

**High environmental management standard**

The Viessmann Kühleysteme GmbH environmental management system in Hof corresponds to the highest attainable standard- EC Regulation 1221/2009 (EMAS).

**Recommended by experts**

With the introduction of the antimicrobial powder coating as the new hygiene standard for all cold and freezer rooms, Viessmann Kühleysteme GmbH received a coveted recommendation from the Federation of Food Inspectors Germany e.V.

Viessmann is a member of the European Hygienic Engineering & Design Group (EHEDG), the expert consortium of machine and component manufacturers, food industry specialists, research institutes and health authorities. The EHEDG's principal task is to ensure safe food manufacturing by supporting hygienic engineering and design in all areas of food production.

The new antimicrobial SmartProtec powder coating that enhances the excellent Viessmann TECTO Standard and TECTO Special cold rooms hygiene package was "highly commended" at the "Best Food Service Innovation" Gulfood Awards 2015.



European Hygienic Engineering & Design Group



Bundesverband der Lebensmittelkontrolleure Deutschland e.V. [Federation of Food Inspectors Germany e.V.]



Gulfood Award 2015



EMAS- Certified Environmental Management

**Made in Germany**

From the initial idea through to prototyping and manufacturing, the years of experience and extensive industry knowledge of the planners, engineers and architects make sure that only the most technologically advanced and highest quality products are made in Hof.

**High product quality - thoroughly tested**

Viessmann products always meet the highest requirements. Viessmann is therefore able to provide a comprehensive product portfolio.

Through regular and meticulous external and internal controls, Viessmann is one of two manufacturers in Germany to bear the mark of conformity (Ü mark) as a sign of quality in the construction industry.

**Viessmann sets the bar for technological innovation**

Viessman optimises its production process through continuous innovation and uses this to its advantage in maintaining the quality of its cold and freezer rooms, to make sure that it meets and exceeds the high standards in commerce, trade and industry. A new powder-coating cabin was purchased in 2013, which is making production much more flexible and effective. 2014 saw the purchase of a new foaming system for cold room panels, which is at the cutting edge of today's technology. Viessmann is also the first manufacturer to provide its cold rooms with an antimicrobial powder coating.



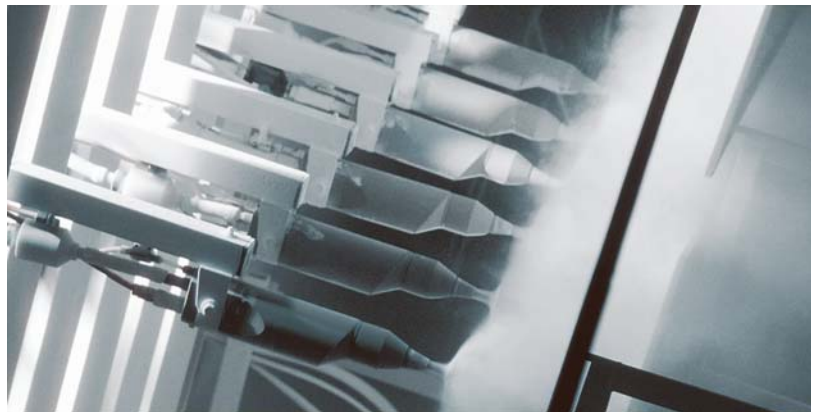
CE marking



VDF Award- Association of Specialist Planners



Quality made in Germany



Powder-coating cabin for the cold room elements



climate of innovation

Viessmann K hlsysteme GmbH

Telephone +49 9281 814-0

Fax +49 9281 814-269

kuehlsysteme@viessmann.de

**[www.viessmann.de/kuehlsysteme](http://www.viessmann.de/kuehlsysteme)**

**Your specialist partner:**

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