

Case Study – Plus Fresc Supermarket, Corbins, with Opteon™ XL20 (R-454C)

Geneva, April 2021. On February 1, a new branch of the PLUS FRÉSC chain of supermarkets (Supsa Supermercats Pujol, SL) was opened in Corbins (Lleida - Spain)

The store has an area of approximately 600m², 375m² of which are for refrigerated products.



A sustainable, high performing solution

The supermarket store 's refrigeration installation operates using an A2L refrigerant, specifically Opteon™ XL20 (R-454C), manufactured by Chemours. This refrigerant provides numerous advantages compared to other solutions. It's GWP is less than 150, complying with the most demanding requirements of the EU F-Gas II Regulation. It is an energy-efficient refrigerant, offering long-term savings plus offers consistently high performance to meet store need.

Operation and maintenance

Opteon™ XL20 (R-454C), offers lower installation cost and lowest 10-year Life Cycle Cost. It is easy to install and maintain and it is designed to ensure a high standard of safety and sustainability for customers and the environment. In addition, this refrigerant is exempt from the Spanish tax on fluorinated gases.

In the words of the store management: "*We opted for this refrigerant because it adapts very well to our refrigeration and energy needs. It offers us security and confidence and helps us to reduce our carbon footprint, being more respectful with the environment*".

Installation

The installation was carried out by AIRFRIO LLEIDA (Lleida - Spain), and consists of the following elements:
 A positive temperature Pecomark condensing unit (-10°C / + 45°C) of 12 kW, with a refrigerant charge of 30Kg for all MT systems. Bitzer compressors.



A negative temperature Pecomark condensing unit (-30°C / +45°C), of 12 kW, with a refrigerant charge of 25 Kg for all LT systems. Bitzer compressors.



- Eliwell controls
- Guntner heat exchangers for the cool rooms



Exkal cabinets (multideck, freezers) and display counters

REFRIGERANT Opteon™ XL20 (R-454C) supplied by KIMIKAL.

Airfrio general manager said: *“The installation has been easy, as with previous installations using HFC. We only had to consider that all the components of the system were approved for use with R-454C. It is a great solution for continuity, simple and effective, and the most economical for our client”*

To meet the necessary requirements to reinforce safety when working with A2L refrigerants, the installation also include leak detectors for A2L refrigerants in retail area and machinery room, and ATEX extraction fans in the machinery room.

Storage cold rooms (positive and negative), multideck, display counters and freezer cabinets are served with both condensing units.



Supsa Supermercats Pujol, S.L. based in Lleida, has 82 supermarkets spread over different Catalan provinces under the Plusfresc banner. Always ready to invest in new technologies that are more respectful to the environment, in collaboration with their nominated installers Airfrio Lleida and his refrigerants supplier Kimikal.