

# ISCEON® MO29

## FRENCH RESTAURANT CHAIN COURTEPAILLE TAKES ACTION

### CASE HISTORY

From 31.12.2009, in just two and a half years, the use of virgin R-22 will be prohibited for service and maintenance of cooling systems. Considering the enormous bank of installed R22, (approximately 14,000 tons in France, 11,000 tons in Germany and 15,000 tons in Italy etc.) it is time for industry to take action. Equipment operators and plant suppliers run the risk of being confronted with supply shortages as the refrigerant supply chain adjusts for the phase-out and contracting resources are stretched to manage the transition. REWE, the German store chain, recognised this and some months ago converted one of its supermarkets ISCEON® MO29 as a substitute for R-22 in a pilot project. Now equipment owners in France are following suit.



#### Courtepaille

Courtepaille, a restaurant chain with characteristic thatched roofs, is following a consistent policy on limiting CO<sub>2</sub> emissions. According to their own information each one of their 184 restaurants in France emits the equivalent of 300 tons of CO<sub>2</sub> per year. This has to change. Antoine Sauvage, Sustainable Development and Maintenance Manager, explains "For well over a year now, we have been following a new policy in environmental protection, which is based on three main points: new buildings, existing buildings, and raising the awareness of our staff. We test various technologies and materials which have the highest possible environmental compatibility when we are opening new buildings, which we do 15 times a year. In the case of existing restaurants, particular attention is paid to improvements in waste disposal, water and energy consumption. In order to raise awareness amongst our 280 staff, each year we arrange various activities during a week of sustainable development."

#### Courtepaille Brétigny

Courtepaille, a restaurant chain with characteristic thatched roofs, is following a consistent policy on limiting CO<sub>2</sub> emissions. Therefore, one of its objectives is to replace the refrigerant R-22 by DuPont's ISCEON® MO29.



#### Courtepaille Brétigny fluide

Filling the installation with ISCEON® MO29.



**Pascal Ebel**

“Converting the refrigeration plants in either restaurant involved hardly any technical changes at all. The change over took a maximum of 1.5 hours in both cases”.



**Ebel-Chauvet-Neil**

Pascal Ebel (Gérant E.F.P.M.), Bernard Chauvet (Courtepaille: responsible technique France Centre), Neil Roberts (DuPont: technical market development manager). “As soon as a restaurant is renovated or the refrigeration plant is serviced, we want to take the opportunity to convert to ISCEON® MO29.”

**Energy efficiency**

In this context, Courtepaille intends to replace its R-22 refrigerant which is still being used in numerous restaurants. The chain has decided to use ISCEON® MO29 (R-422D) made by DuPont. ISCEON® MO29 is an R-22 substitute developed for medium and low temperature applications which does not deplete the ozone layer and is compatible with mineral oils. This means no engineering changes are required for existing plants. In addition, in many cases ISCEON® MO29 delivers significant energy consumption savings. Two restaurants, one in Massy (93) and one in Brétigny (91) have already been successfully converted. “As soon as a restaurant is renovated or the refrigeration plant is serviced, we want to take the opportunity to convert to ISCEON® MO29”, according to Bernard Chauvet, Technical Manager, Central France. Naturally the restaurant chain is considering costs as well as environmental protection. “ISCEON® MO29 is theoretically a good solution for us in every way. On the one hand we are in compliance with the authorities in that we no longer use HCFCs plus we are getting our installed equipment into good shape. Additionally we are also able to save costs and energy by using ISCEON® MO29 – an ideal combination”, Antoine Sauvage says delightedly.

**Simple**

Plant builders E.F.P.M., who are responsible for refrigeration and air conditioning in about 40 Courtepaille restaurants in the Paris region, are also satisfied with ISCEON® MO29. Their main interest is in the refrigerant being easy to use: “We hardly have to make any technical modifications. Converting the refrigeration plants in either restaurant involved hardly any technical changes at all. The change over took a maximum of 1.5 hours in both cases”, according to Pascal Ebel, Managing Director of the 17-man company. As a result of the positive experience of using ISCEON® at Courtepaille, Mr Ebel intends to recommend the ISCEON® solution to other customers who are affected by the phase-out of R-22.



**Technical data, Courtepaille Brétigny-sur-Orge**

Refrigerated cabinet	1.5 m, 2 shelves
Compressor	L'Unité Hermétique, Model CAJ9513T

	R-22	ISCEON® MO29
Discharge pressure (bar)	11	12
Discharge temperature (°C)	67	53
Condensing temperature (°C)	30,3	33,1
Suction pressure (bar)	1,1	1,3
Suction gas temperature (°C)	-8,0	-8,2
Evaporation temperature (°C)	-24	-21,9
Evaporator inlet temperature, air (°C)	3,0	2,7
Evaporator outlet temperature, air (°C)	-5,8	-6,0
Outside temperature (°C)	13,8	12,7

**Cuisine Brétigny**

During the renovation of the Courtepaille restaurant in Brétigny, R-22 was replaced by DuPont's ISCEON® MO29.



### Equipe Courtepaille Brétigny

Pascal Ebel (Gérant E.F.P.M.), Bernard Chauvet (Courtepaille: responsable technique France Centre), Charlotte Debare (DuPont: Chef de marché grand comptes), Cédric Duclos (E.F.P.M.) and Nicolas Ranson (E.F.P.M.). The DuPont team, distributor Gazechim and Courtepaille's technical manager attended the conversion in Brétigny-sur-Orge.

[www.refrigerants.dupont.com](http://www.refrigerants.dupont.com)

*This information corresponds to our current knowledge on the subject. It is offered solely to provide possible suggestions for your own experimentations. It is not intended, however, to substitute for any testing you may need to conduct to determine for yourself the suitability of our products for your particular purposes. This information may be subject to revision as new knowledge and experience becomes available. Since we cannot anticipate all variations in actual end-use conditions, DuPont makes no warranties and assumes no liability in connection with any use of this information. Nothing in this publication is to be considered as a license to operate under or a recommendation to infringe any patent right.*

*The DuPont Oval, DuPont™, The miracles of science™, ISCEON® are registered trademarks or trademarks of DuPont or its affiliates*

L-13870

© 2007

All rights reserved



*The miracles of science™*