



EFCTC NEWSLETTER

An update on fluorocarbons and sulfur hexafluoride

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HFC-BASED POLYURETHANE INSULATING FOAM OPTIMIZED FOR REFRIGERATION APPLIANCES

Using an HFC-based formulation, it is possible to lower the thermal conductivity of various rigid polyurethane [foams](#) by around five percent for the production of refrigerating appliances.

The reduction in foam thermal conductivity is primarily due to its smaller cell size. The size and size distribution of the foam cells have a major influence on the insulation capacity – the finer the cells, the better the insulation properties.

This reduction however, not easy to achieve, relies on selection of formulation components and development of an appropriate catalyst package.

Most North American refrigerator manufacturers chose [HFC-245fa](#) as the blowing agent when [HCFC 141b was phased-out](#). In order to economically achieve the very low foam thermal conductivity needed to meet the [energy consumption](#) regulations for North American refrigerators, formulations had to be optimized to reduce the amount of HFC-245fa required for foaming by around 20 percent.

Refrigerators and freezers are responsible for a significant proportion of the energy consumed in modern households. The thermal conductivity of the polyurethane rigid foam insulating materials used in these appliances is therefore crucial.

Source : Product manufacturer

CONSUMPTION AND PRODUCTION OF OZONE DEPLETING SUBSTANCES IN DEVELOPING COUNTRIES

[UNEP's OzonAction](#) Branch is publishing regularly updated data on the consumption and production data of [ODS](#) (ozone depleting substances) in the developing country signatories of the [Montreal Protocol](#).

These data will help follow these countries' compliance with the approaching 2010 targets for the phase out of the consumption and production ODS.

At the same time, these countries must also prepare themselves to comply with the recently decided accelerated HCFC phase-out schedule, beginning with a freeze in production and consumption by 2013.

This Trends Analysis service is designed to provide a visual tool to help stakeholders to remain informed on these matters.



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For of each country, graphs are presented, including its

- *Consumption level*
- *Production level (if appropriate)*
- *Consumption freeze level (not yet for HCFCs)*
- *Production freeze level (if appropriate)*
- *and Montreal Protocol compliance targets (respective freeze or reduction target dates are included for reference).*

The freeze level of HCFCs in developing countries is not yet established, but it will be shown once freeze level and subsequent reduction levels will be decided.

Source : <http://www.unep.fr/ozonaction/information/trends/index.htm>

DESIGNER OF WORLD-CLASS EFFICIENT HFC COMPRESSOR AWARDED THE BRITISH INSTITUTE OF REFRIGERATION GOLD MEDAL

The British Institute of Refrigeration prestigious awarded its Gold Metal 2008 to the designer of a world-class centrifugal compressor, developed to be extremely [energy efficient](#), totally oil free, lightweight, quiet and cost competitive.

To date, over 10,000 of these compressors are operating worldwide, and the technology is being improved to achieve even further efficiencies and newer models.

The winner had designed a compressor from scratch based on his own extensive experience in the chiller and compressor rebuilding and maintenance field. He assembled a world-class international team of experts with a mission to develop a centrifugal compressor that would meet all of the [refrigeration](#) industry's needs.

By using a variable speed design with virtually no internal friction, the featured compressor is able to deliver energy savings as much as 30% compared with previous designs.

The Gold Medal is awarded annually to an individual considered to have made the most noteworthy practical contribution to the advancement in the field of refrigeration and air conditioning technology.

Source : http://www.refripro.eu/index.php?lg=en&id_actu=0327



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STYLISH HFC AIR CONDITIONERS FOR THE HISTORIC "LANDSHUTER ALTSTADT" BUILDING



Stylish room [air conditioning](#) units with their exclusive design and high comfort stand out from traditional air conditioning units and integrate themselves harmonically into every living space.

Units like these, using HFC-410A as refrigerant, have been installed in the historical "Landshuter Altstadt", nowadays occupied by a bank, in the south of Bavaria. The building, surrounded by other Gothic private houses in the old part of the city, has been able to keep its gothic charm as well as keeping its occupants cool and comfortable.

The owner of the building wanted the air conditioning units to be in harmony with the atmosphere of an historical building. Instead of conventional wall or ceiling devices, design air conditioners were installed into niches in the wall and integrated into the ancient architecture of the building.

Source : www.diekaelte.de (October 2008) and equipment supplier

NEW ON FLUOROCARBONS.ORG

The page [OZONE DEPLETING SUBSTANCES](#) Europe has been updated with the Revision of the EU Ozone Depleting Substances Regulation.



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NEW ON FIGAROO.ORG

[IOR guide to Good commercial Refrigeration Practice](#) added to the page [Training and Certification](#)

EU COMMISSION PUBLICATIONS FOR F-GASES STAKEHOLDERS

Brochures and leaflets for F-Gas regulation stakeholders are available on the [Commission webpage](#) :

Brochures for operators and Technical leaflets for personnel involved in:

- Stationary refrigeration, air-conditioning and heat pump equipment
- Stationary fire protection systems and fire extinguishers

Brochures for operators and technical personnel involved in:

- High voltage switchgear
- F-Gases containing Solvents

Leaflet for producers, importers and exporters of F-Gases, and for some users or firms placing on the EU market F-Gases containing equipments.