

DuPont™ ISCEON® REFRIGERANTS

CASE STUDY- FREEZER CABINET

Comparison of True Manufacturing Freezer Cabinet Converted to DuPont™ ISCEON® MO79 (R422A)

ISCEON® MO79 (R-422A) outperformed R-404A, as a recent US trial has shown.

ISCEON® MO79 which has been specifically developed to replace R-22 in low temperature applications, was compared to R-404A in a True Manufacturing freezer air-to-air system with capillary tube, air-cooled condenser and a Copeland semi-hermetic compressor. The system was first monitored with its original R-404A charge and then converted to ISCEON® MO79. No major technical modifications were required.

ISCEON® MO79 was not only shown to have a higher cooling capacity than R-404A but also a 5% lower power consumption measured over a 420 minute monitoring period. Another advantage is the 7% reduction in the discharge temperature which is likely to be of benefit to the compressor. The reduced power consumption and increased capacity of ISCEON® MO79 indicated that the COP will be significantly enhanced.

ISCEON® MO79 (R-422A) is part of the DuPont™ ISCEON® refrigerants range of non-ozone depleting HFCs which can be used without the need to change the oil type or for major engineering modifications. This makes it a cost effective alternative to R-404A in existing systems. Its energy savings and its GWP, which is significantly lower than that of R-404A, are further important advantages, considering the Kyoto Protocol targets to reduce greenhouse gas emissions. This refrigerant has also proved successful in replacing R22 and R408A in low temperature applications.

ISCEON® MO79 (R-422A) is available in the UK **from IDS Refrigeration Limited.**

For further information on any of the ISCEON® refrigerants range contact us at the telephone numbers above or by e-mail at, marketing@idsrefrigeration.co.uk

This case study has been updated to reflect name changes - Originally written February 2005

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