



Refrigerated cabinet testing

Background

frperc has spent many years performing tests on all types of refrigerated cabinets. Increasingly end users are demanding independent evaluation of the performance of refrigerated cabinets and confirmation that the cabinets perform to British, European and International test standards.

Although testing to a set standard is useful, it rarely reflects cabinet performance under real usage. Therefore bespoke tests can also be performed outside of the 'standard' conditions. Almost any operating environment can be created in our dedicated cabinet test rooms to better evaluate real world performance.

An additional service offered by frperc is development to improve cabinet operation. This can involve improvements to the actual cabinet design and/or evaluation of the refrigeration system. Often re-design of cabinets is carried out with the help of CFD (Computational Fluid Dynamics) modelling that allows greater understanding of airflows within cabinets.

How frperc can help

Cabinet testing and facility development

frperc has facilities to test all sizes of cabinets from the smallest domestic unit to large retail display cabinets. We can provide the following services:

EN441 commercial cabinet testing - integral or remote cabinets

Calculations for compliance with ECA (Enhanced Capital Allowance) scheme

Testing of domestic refrigerators

Refrigerant performance testing

Conversion to environmentally friendly refrigerants

Hydrocarbon conversion - safety and optimisation

Cabinet development/optimisation

Development/improvement of cabinet performance

Energy consumption optimisation

Development and specification of refrigerated cabinet test facilities and related equipment

Test pack manufacture

Specific test packages are required to test refrigerated cabinets to any standards. These are manufactured from a cellulose gel and have tight constraints on size and weight. frperc can manufacture packs that are suitable for any domestic or commercial cabinet testing. The packs are manufactured to EN/BS/ISO test standards and are wrapped in sealed, non-permeable vacuum-formed packaging (0.6-0.7mm thick).

Thermocouple temperature sensors can also be manufactured for insertion into the test packs or for measurement of ambient temperature within the test room or cabinet.

To discuss any aspect of refrigerated cabinet testing, please contact us on +44 (0)1472 582400 or email us on frperc@grimsby.ac.uk