Developing local IGU tests

Over the last 25 years, BRANZ has been instrumental in developing robust methods and undertaking rigorous testing to support the local manufacture of quality insulating glass units.

BY JOHN BURGESS, BRANZ SUSTAINABILITY SCIENTIST

IN THE EARLY 1990S, double glazing systems, or insulating glass units (IGUs), began being used more frequently in New Zealand housing. Their thermal benefits had long been acknowledged internationally, and as the local housing market developed, they were seen more often in higher-end housing.

Made in New Zealand

Transporting IGUs from overseas was not easy, so more local manufacturers began making units for domestic supply. However, the life expectancy of many local IGUs was poor, with a maximum 5-year warranty given for a typical domestic installation.

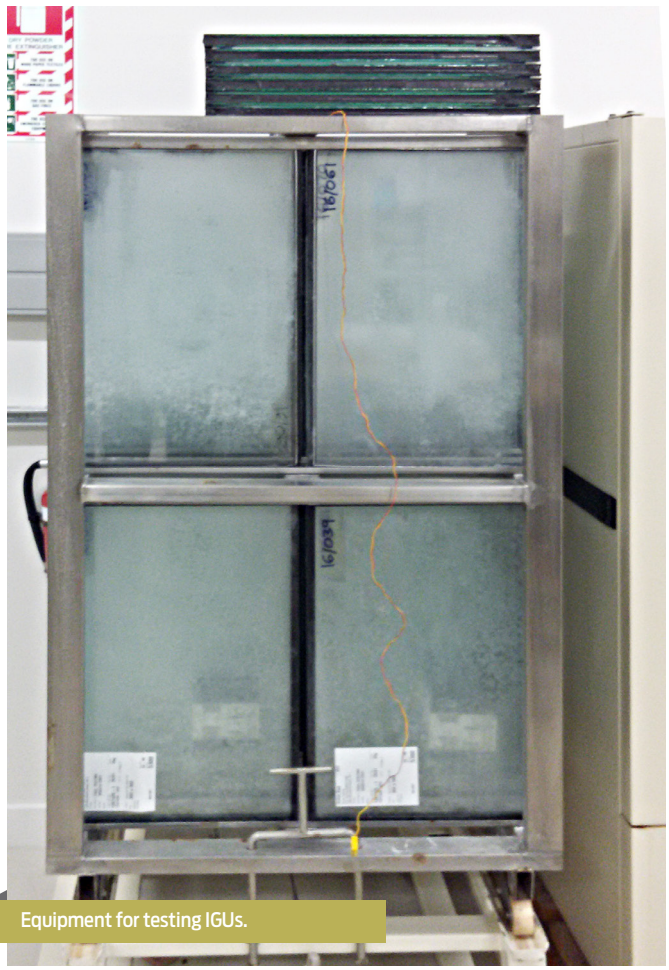
In response, the Insulated Glazing Unit Manufacturers Association (IGUMA) was formed in 1992, in liaison with BRANZ, to represent New Zealand manufacturers of IGUs. As an industry body, IGUMA has been able to address the problems with double glazing found in New Zealand.

Two issues found in the 1990s

During the 1990s, a Building Research Levy-funded BRANZ research project investigated the problems with IGUs. Two main issues were identified - poor installation and poor manufacture.

To address manufacturing quality concerns, the British BS 5713:1979 IGU durability test was identified as the most appropriate test available at the time and was adopted.

Equipment was purchased and commissioned at BRANZ to undertake this test. Further research continued into the reasons for failures, with international developments informing the testing process.



Equipment for testing IGUs.