

By Ian Page, BRANZ Industry Performance and Social Research Team Leader (Acting)

New-home defects

Compliance and quality defects in new homes are disturbingly high, a BRANZ survey has found.

FROM TIME TO TIME, there are media and anecdotal reports about poor quality in new housing. These have increased in recent times with rising workloads in the industry. It is often suggested that skill shortages in some locations has caused the quality to decline.

Callbacks rising

The BRANZ New House Owner’s Satisfaction Survey tends to support this, with callbacks

by new owners rising to 88% in 2014, up from 73% in the previous year.

The owner-reported defects mainly relate to the finishes - painted surfaces, trim and joinery - that are obvious to the owners.

The structure, weathertightness and durability requirements are not immediately visible to the owners, and they assume these Building Code requirements have been incorporated into their home. How true is that assumption?

Houses under construction inspected

BRANZ undertook site inspections of 225 homes under construction. The work was done by Realsure, a property inspection company based in Wellington with associates in other centres. The inspections were at post-wall underlay, pre-lining and final inspection.

Problem areas and defects were recorded for each house. The most common are shown in Figure 1. Defects in other components, below 20% incidence, were also recorded but are not shown.

The defects were divided into compliance defects and quality or appearance defects.

Several common compliance defects

The most common compliance defects found were inadequate fixing of the window jambs to the framing, loose flexible wall underlay and head flashing defects. Over 40% of houses inspected had defects in these components.

Poorly fitted insulation

The most common quality defect was in the fit of the wall insulation. For some walls, there were small gaps or the insulation was unduly compressed to fit. This reduces the

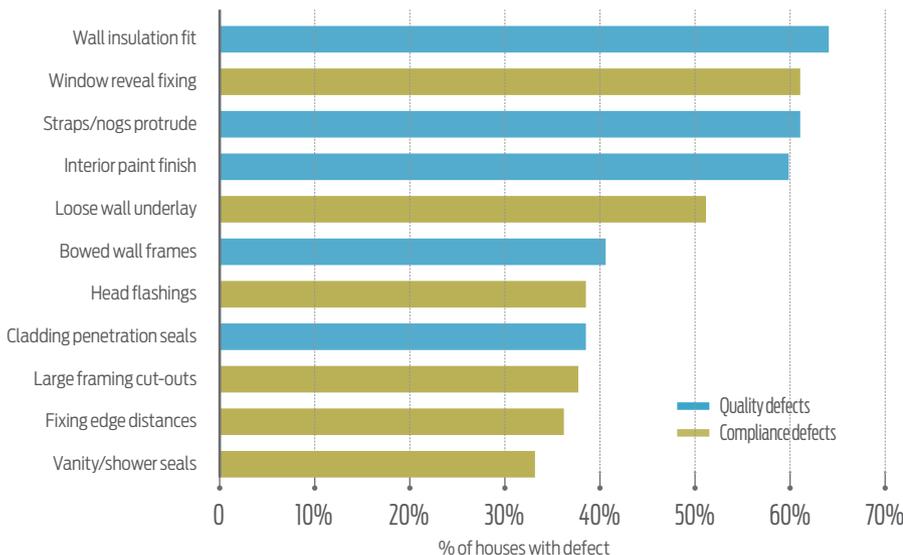


Figure 1: The common house defects identified during inspections.

thermal performance, but as a whole, the insulation is still useful.

This was classed as a quality defect but it could be described as a compliance defect since it does not fully meet NZS 4246:2006 *Energy efficiency - Installing insulation in residential buildings*.

Bowed walls

This is also the case with bowed walls. The stud deformation was just over the allowable amount in a few locations but was not sufficiently large to cause structural problems. Instead, it made it difficult to get an even lining surface, and hence this was classed as a quality or appearance defect.

Serious defects in 8% of houses

The distribution of defects in houses inspected is shown in Figures 2 and 3. There are 18% of houses with no compliance defects and only 8% of houses with no quality defects.

The ideal state is zero defects for both, but that is unrealistic for all houses. We have arbitrarily assumed that four or more compliance defects suggest a significant problem with a house. This includes 19% of houses or 16% in final inspections only.

Probably some of the compliance defects would have been remedied before the issue of the Code Compliance Certificate. Also, we know that cavity construction is quite robust in handling any defects in the wall cladding or flashing. Therefore, we assume a halving to 8% better represents the very approximate proportion of serious defect houses.

This is a significant percentage, and there are also the quality and appearance defects.

It is disturbing that the industry is producing so many defects in both compliance and quality.

For more See BRANZ Study Report SR335 *New house construction quality survey 2014* on www.branz.co.nz.

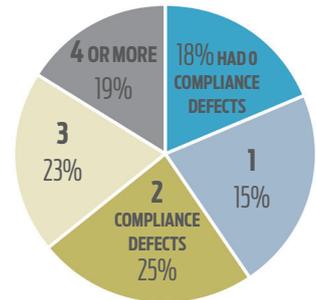


Figure 2: Number of compliance defects per house.

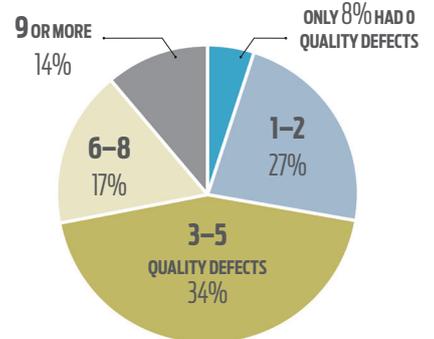


Figure 3: Number of quality defects per house.