

Steps to product assurance

Recent concerns about some building products not being fit for purpose underscore the need for manufacturers and suppliers to provide the right product information – and to back this with suitable evidence.

IN A PREVIOUS ARTICLE (*Build 150, Products that stand the test*), I noted that anyone who makes, imports or supplies products for use in building work is responsible for ensuring they comply with the Building Code. The evidence to support this should be relevant, credible and comprehensive.

Several ways to show Code compliance

Manufacturers and suppliers can go about demonstrating Code compliance in one or more ways. These include:

- manufacturer information, for example, technical specifications, test results, calculations
- independent assessments, for example, appraisals by testing laboratories, chartered professional engineers or through industry-based assurance schemes such as those for ready-mixed concrete and insulating glass
- product certification - as provided for under the Building Act with the CodeMark scheme. Products can only obtain certification after an extensive assessment by an accredited product certification body. These products must be accepted

by building consent authorities as Code compliant when used as specified on the product certificate.

Assess, appraise or certify?

Manufacturers and suppliers have important decisions to make about the level of product assurance needed for their product.

Should it be assessed, appraised or certified? This involves balancing the risk that it won't be accepted as Code compliant against the costs and other commercial factors.

Building consent authorities may also look at risk but from a different viewpoint. They'll be considering the product's use in the context of a particular building consent application. The more risk they perceive, the more certainty they will want around Code compliance.

Ways to reduce risk

Table 1 lists some of the factors that can influence a product's apparent risk and ways it might be reduced. 'Failure' in Table 1 means failure to comply with the Building Code.

While this information comes from the MBIE product assurance decision tool for manufacturers and suppliers, it should also be of interest to anyone using, approving or specifying these products.

Further resources

MBIE has recently updated and expanded the product assurance resources to include:

- practical tools and guides to help manufacturers and suppliers understand how our laws apply
- how to show compliance with the Building Code, including how overseas test results and assessments can be relevant
- how to produce the right information in the most useful format.

There is also a quick guide to product substitution for designers, contractors and building owners. This explains what to consider before substituting products, as doing so may affect warranties, building work and any building consents. ◀

For more ▶ The product assurance resources and a guide to product substitution for designers, contractors and building owners are available at www.building.govt.nz.

Table 1

Building products risk considerations

LIKELIHOOD OF FAILURE*

FACTORS INFLUENCING THIS INCLUDE:

WAYS TO REDUCE THIS INCLUDE:

Previous evidence of failure	Any past problems with this or similar products? If so, have any changes been made (for example, to installation methods, product components) to reduce or remove this risk?	<p>Limiting the scope of use</p> <p>Changing how it is produced or installed</p> <p>Implementing/ improving a quality assurance system for manufacture</p> <p>Improving installation and maintenance requirements and information (could include more controls or oversight)</p>
Installation	<p>Is this easy, does it require some building knowledge, or can it only be installed by LBPs or approved installers?</p> <p>Are installation instructions clear and readily available?</p>	
Maintenance	<p>How important to the product's performance/ likelihood of failure?</p> <p>How likely to be carried out? A qualified person needed? Maintenance instructions readily available?</p>	
Discoverability	<p>Is the product visible during daily use? During maintenance?</p> <p>Could it fail without warning, or would any impending failure be apparent so able to be fixed?</p>	

CONSEQUENCE OF FAILURE*

FACTORS INFLUENCING THIS INCLUDE:

WAYS TO REDUCE THIS INCLUDE:

Scale of failure	Would this be minimal, moderate (for example, would lead to a leak/water ingress) or substantial (for example, failure would render the building uninhabitable)?	<p>Installation changes to reduce the potential impact</p> <p>Design changes to provide a backup system for any failure</p> <p>Implementing warning systems where possible</p>
Impact on other building components	Would this be isolated or could it affect other building components? How serious could this be?	
Notice of failure	Would there be any warning so that any impact on health and safety could be addressed before it's serious or, in an extreme case, so people could be evacuated before the building collapsed?	
Financial loss	Would failure cause any financial loss to the building owner or neighbouring building owners? If so, to what extent?	

*Note: This means failure to meet the relevant performance requirements of the Building Code.