Prototype Product Assessment

The BBA has launched a new service for building product manufacturers in the stage of product development where prototypes are available but full production is still some way off.

Full BBA approval may be on any serious building product manufacturer’s agenda but this is geared very much at finished products available on the market and to date there has been no interim stage where a product under development may be assessed and a document that should be of use in the marketing of the new products, published.

This new document is called a Prototype Product Assessment (PPA) and is designed to provide independent information to specifiers, building control personnel and contractors considering the use of the product at some time in the future.

Like conventional BBA approval, the PPA process will consider the critical performance areas relevant to the product. These are likely to include Building Regulations compliance, functional capability, application benefits, and limitations in UK, maintenance and production control.

A key difference to the standard BBA assessment will be the use of Failure Modes Effects Analysis (FMEA) and Failure Modes Effects and Criticality (FMECA). These were developed in the aeronautics and other high-tech industries to assess residual risk arising from very new and prototype products used by these industries.

Key FMECA considerations could be probability of failure, its detectability and severity of outcome. Within each of these a judgement is made and a score of 1 to 5 given (1 low and 5 high). Each category score is multiplied with the others and a total score calculated. This enables risk comparisons to be made between the prototype and well-established products familiar to the industry.

The first PPA issued by the BBA is for an anti-flood air brick, known as the Smart Airbrick, marketed by Eco Coverage Technologies and evaluated for flood-prone areas but has suffered lack of acceptance because no realistic assessment of its performance has been possible to date.

The BBA process investigated the functioning of the Smart Airbrick, checking the leakage risk in different types of floodwater, and its performance as an air brick in normal non-flood situations.

The results of this assessment, including the FMEA and FMECA, are set out in the PPA for the Smart Airbrick, available via the BBA website.