THE SYSTEM DESCRIPTION – MAKE IT WORK FOR YOU

Mike Gaillard, Technical Director of CEN Solutions Ltd, explains the importance of the System Descripiton document in helping insulating glass manufacturers to maintain their quality systems

In our experience at CEN Solutions of dealing with hundreds of ig unit manufacturers, the System Description document is poorly understood. In many cases, it is used purely as a specification for the units submitted to the two recognised test houses for the Initial Type Test.

In fact, this document is one of the most important to be included in your technical file, although this point seems frequently to be ignored by many who are in a position to advise manufacturers. In reality it is the bible, providing as it should, an accurate description of all the components and the specification to which the units are made. Make units outside the system description's terms of reference and you could be deemed to be non-compliant.

It is essential that the specified actions and absolute limits are achievable, but the description of some components and application equipment should be broad enough to allow changes in purchasing or manufacturing methods to be easily facilitated.

The System Description is a lengthy document and it is impossible to cover all topics in this article. Therefore, I shall discuss briefly two key aspects of IG unit manufacture; perimeter sealant and primary sealant.

Perimeter sealant

Perimeter sealant: an area of particular confusion is the glass to sealant bond area. The 6mm to 8mm specification was not originally a maximum and minimum limit. It was related to the two recommended depths of seal for the two types of spacer bar on the market in the early 1980s.

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These were 'D' bar (6mm) and the now obsolete 'T' bar (8mm). These dimensions facilitated the most important minimum depth of seal of 3mm over the back of the bar and they ensured that the integrity of the seal would not be compromised.

The presence or absence of air voids and/or incomplete fill must be recorded. This requires careful consideration of the wording of the specification, to avoid overly complicated measurement and records during final inspection of the completed units. The terms used to describe the type of dispensing machine should be hot melt, warm melt or two part, allowing the manufacturer to use or change to a machine suitable for his production methods.

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Primary sealant

Primary sealant or PIB: The sealant coating amount is usually expressed in grams per metre per side. This requires careful monitoring and with two part sealants it is particularly important that the seal is continuous with no, or only very minor, faults. The current specification of 2 to 4 grams per metre per side enables good results in the EN 1279 Initial Type Test. However, this specification has proved to be excessive, as the PIB can ingress into the cavity over a period of time, causing complaints from the end customer.

If lower sealant weights are used to prevent this for normal production units, the supplier's specification and the system description may be compromised. There is obviously a conflict here between the quality required to satisfy the end user and the performance to EN 1279 Parts 2 and 3.

Remember that the System Description is part of the quality system. Avoid confusion and over-complication and it will help the Quality System to work for you and not vice versa.

■ CEN Solutions' new website is being kept up to date on developments in all European legislation proposals for glass and windows. It carries full details of all aspects of the CEN Solutions service package, including the new test house facility and ongoing compliance management support after initial accreditation. Further advice is available at www.censolutions.com