

related test method	EN 13823:2010
subject	Flaming droplets and particles - harmonised grid for SBI burner
reference of original query	TC1, N535 & N446, Helpdesk 2011-03

Problem:

In EN 13823:2010 the option of using a grid to protect the burner from being substantially disturbed by falling material is presented.

A problem related to the use of this grid has arisen. When testing a product using the grid, material can fall on top of the grid and their trajectory change so that they end up in the droplet/particle zone. This does not necessarily mirror the properties of the material since, without the grid, particles or droplets might not have ended up there. How should this problem be handled? Since the use of the grid shouldn't have an impact on the classification of the product, our idea is that particles landing on the grid are treated as if they would have landed on the burner.

Recommendation

Requests from standard EN 13823, clause 4.4.6 f:

Tilted by 45°

Open area (ratio open area to total area): at least 90%

Recommendation: Use of a welded wire mesh. The wire is made out of plain steel with diameter 2 mm. Mesh size 48,8mm x 48,8 mm (i.e. open area = 92,3%)

The wire mesh is fixed on a triangular frame made out of plain steel wire with diameter 4 mm. The bottom length of this frame is 450 mm, the sides have a length of 373 mm each.

The grid is fixed on the front edge of the burner. The tip of the grid is supported by a steel rod (diameter 10 mm) which is placed inside the U-profile.



