

PU Europe FIRE HANDBOOK

FIRE SAFETY IN BUILDINGS

► FIRE SAFETY OBJECTIVES

When considering the fire safety of buildings, there are a number of key objectives to be achieved. The primary objective is clearly to prevent loss of life of occupants and fire fighters. A secondary objective is the limitation of damage of property [1] and the protection of the environment.

A fire safety assessment identifies the conditions needed to meet these objectives and looks at the balance of risk. However, in order to do that it is necessary to understand the different factors that will influence the outcomes in case of fire. On this basis it can be decided, whether the assessment should focus on a material, the products or the system or a combination.

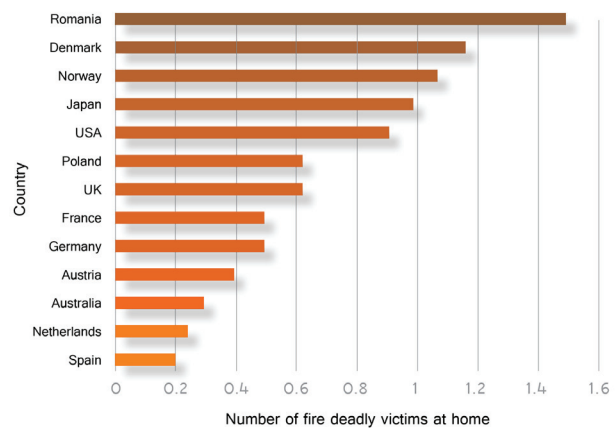


Table 1: International comparison on the number of fire victims 'at home' per 100 000 inhabitants of a given country (average over several years) [2]

RISK ASSESSMENT

- Is the product likely to be the source of ignition?
- Is the product likely to be the secondary ignited item?
- Is the product a potential significant fuel source even if not being the first or secondary ignited item?
- What is the potential avenue to contribute to the risk (and hazard)?
- How close are occupants and/or critical equipment to the origin of a fire?

Whether the assessment focuses on a material, product or system is determined by an investigation of the risk.

¹ Isopa Brochure: *Performance of polyurethane (PUR) building products in fires*

² Dr. rer. nat. Georg Pleß (Institut der Feuerwehr Sachsen-Anhalt based

on statistics of the World Health Organisation), Ständige Konferenz der Innenminister und -Senatoren der Länder, Forschungsbericht Nr. 145 (Teil 1)