

Review:
Fire Protective Clothing
A Guide for Those Who
Manufacture or Store
Pyrotechnics or Propellants

Confederation of British Industry
Explosives Industry Group, 1995
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This relatively short publication (23 pages, including references) provides an enlightening look at protective clothing and the various materials—modern and otherwise—used in its manufacture. Though a substantial part of the content relates specifically to British and European standards and regulations which readers in other parts of the world may not find directly relevant, there is still much of potential interest.

This publication deals only with protection from transient thermal effects, such as might arise from accidental ignition of pyrotechnic compositions or propellants. That it does not address blast or projectiles is not surprising, given that guarding against these hazards is largely beyond the capability of mere clothing. Burn injuries, on the other hand, can in many cases be prevented or minimized even by rather unsophisticated work attire of the proper materials.

The most useful information in this publication concerns the classification, selection, and performance of various materials including aramids, polybenzimidazole, carbon fiber, treated cellulose, leather, and aluminum-coated fabrics. Qualitative comparisons are given, but no quantitative performance data are provided. This apparent shortcoming is acknowledged in the text, which refers to on-going research involving the measurement of thermal effects from burning explosives and the development of a manikin assessment method for protective clothing. More detailed data will apparently be forthcoming in future editions of this or related documents.

The work also discusses protection for specific parts of the body, and gives recommended practices for the maintenance of protective equipment. It concludes with a rather extensive list of documents and references where more detailed information on protective clothing may be found, the majority of which are British Standards and other government publications.

While not a comprehensive reference in its present state, this publication is useful as a quick source of basic information, and provides useful directions for further reading.