



SAFETY ALERT

PART's A,B & C

Fitment of Plastic Fire Door Protective Coverings

Number: SA2022-08



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When it takes effect: Immediately

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Foreword:

This Safety Alert is published by Defence Infrastructure Organisation (DIO) for Mandatory actioning across all areas of the MoD. This safety alert is to be followed and completed for all contracts including USVF, Overseas and PFI arrangements

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This Safety Alert is to be read by the following so appropriate action can be taken:

1. DIO's Maintenance Management Operations and their Supply Chains
2. DIO Regional Delivery Manager (or equivalent for non-NGEC contracts)
3. Head of Establishments
4. PFI/PPP Estate providers/maintainers
5. Others interested in the content of the Safety Alert might include:
Defence Fire Safety Professionals, Heads of Establishments, Assurance Managers, Estate Facility Managers, Assurance Managers in Regional (Service) Delivery Health & Safety Advisors, Top Level Budget Holders, Prime Contractors, Project Managers, Infrastructure Managers and Property Managers with responsibility for MOD Projects and Property Management Works Services (including the legacy work of EWCs/WSMs), Authorised Persons (Electrical), Authorising Engineers (Electrical), etc.

Equality and Diversity Impact Assessment

This document has been Equality and Diversity Impact Assessed in accordance with the Defence Equality, Analysis Guidance 2018

1. Aim(s)

The aim of this Safety Alert is to:

1. *Inform those with fire safety responsibilities on the defence estate of the issue of smoke production from plastic sheet materials used to protect wooden fire doors from damage by users with trolleys, carts, beds and in areas where doors are under heavy use.*
2. *Provide acceptable smoke production ratings for those specifying plastic sheet coverings to protect wooden fire doors (Part A)*
3. *Requests those responsible for the maintenance of the estate to document where the products have been used and provide feedback to the safety alert mailbox (Part B and C)*

2. Introduction

Products are available on the commercial market that can be applied to the face and leading edge of wooden fire doors after their installation state to provide protection to fire doors from damage by users with trolley, carts, beds, and damage from heavy use.

Where the product used to protect the wooden fire door consists of a plastic sheet material, usually comprising a 2-3mm thickness, it is likely to have fire certification to confirm the product has no negative impact on the fire door rating, but these products are rarely tested for smoke production as this requires a separate fire test.

Note – The fire certification for the product should always be checked to ensure the fire rating of the product is equal to or greater than the fire door it is being fitted to and the door manufacturer should be contacted to ensure the fitting of the product does not adversely affect the fire certification for the fire door.

Smoke production in plastic-based materials is likely to produce black toxic smoke. Therefore, it is critical that smoke production ratings are considered when applying plastic sheet materials to wooden fire doors.

Smoke production ratings and those considered acceptable by the DIO TS Fire Safety for plastic sheet materials used to protect wooden fire doors are described as part of this safety alert with instructions for those responsible for maintenance on the estate to document where these products have been used.

3. Background - Smoke Production Ratings

It is DIO TS Fire Safety's view that this is an industry wide issue as there is evidence that these products are rarely tested for smoke production ratings under BS/EN standards as the manufacturer's details rarely mention the smoke production rating that they are given.

Smoke production ratings are written as s1, s2 or s3 with s1 being the rating with the lowest smoke production and s3 the most smoke production. Full details on smoke production ratings are provided below:

Smoke production tests are taken during a set number of minutes of exposure to heat/fire and the following ratings are provided.

*s1 qualifies as having a smoke production rating of smoke emission with Quantity/speed of emission **absent or weak** (A smoke growth rate (SMOGR) of $\leq 30\text{m}^2/\text{s}^2$ and a total smoke production (TSP) of $\leq 50\text{m}^2$)*

*s2 qualifies as having a smoke production rating of smoke emission with Quantity/speed of emission of **average intensity** (A smoke growth rate (SMOGR) of $\leq 180\text{m}^2/\text{s}^2$ and a total smoke production (TSP) of $\leq 200\text{m}^2$)*

*s3 qualifies as having a smoke production rating of smoke emission with Quantity/speed of emission of **high speed and substantial/heavy intensity** (A smoke growth rate (SMOGR) of over $180\text{m}^2/\text{s}^2$ and a total smoke production (TSP) over 200m^2)*

4. Part A - details the aspect of concern and identifies the number and location of affected assets, and any immediate measures necessary to make safe. A **Part A** SA will be issued in all cases (except Industry Derived SAs) as the priority is to expediently alert individuals to a potentially unsafe condition and to provide guidance upon how to mitigate the danger.

This Safety Alert is written to ensure the following direction is adhered to:

- 1. Document Management - To ensure that the product in use is documented in the buildings fire folder, is written into the buildings Fire Risk Assessment (on next review) and the type and smoke production rating of the product is acceptable for life safety purposes in the area it is fitted in accordance with the direction below; Products with a fire certification equal to or exceeding the fire door rating it is fitted to and a smoke production rating of s3 should not be used on the Estate where persons are expected to sleep, work, or escape through in a single direction (signed means of escape) or buildings classed as critical to Defence.*
- 2. Products with a fire certification equal to or exceeding the fire door rating it is fitted to and a smoke production rating of s2 should not be used in areas of buildings on the Estate where persons are sleeping, have mobility impairments, in a facility that has a delayed evacuation process.*
- 3. Products with a fire certification equal to or exceeding the fire door rating it is fitted to and a smoke production rating of s1 are suitable to be used anywhere on the Estate.*

5. Part B - details the action required. This can be (1) the agreed mitigation, where this is known, for example Manufacturers' recall, or (2) undertake further investigation to identify the underlying issue and propose a repair scheme or (3) undertake full repairs following DIO TS Technical Authority review of MMOs proposed technical solution. Where a **Part B** (2) is issued, a revised SA detailing the required actions will be released following DIO TS Technical Authority evaluation of evidence provided by the investigation and a review of MMOs proposed technical solutions.

SEFMs & EFMs and their Estate equivalents should, in the first instance,

- contact their HoEs and relevant others to establish if such materials have been installed or is in store on the estate. Building custodians, MMOs and others involved in estate management should be able to identify if they have infrastructure such as these fire door coverings that appear to be plastic in origin, or if such products are in storage awaiting use. The Site MMO should also be asked if they have such products in storage awaiting use.*
- confirm and record the type of plastic fire door covering, location, manufacturer and any other product details relating to fire resistance and smoke production.*

Where a return isn't received from the SEFM and EFM community, or the return is unable to determine manufacturer the DIO Regional Delivery Manager, or equivalent, shall proceed to requesting the MMO for the above details in the next Establish all locations and quantity that have this type of composite product fitted.

- Establish any known any fire rating or standards of the product fitted*

