

WORKING TOGETHER TO RAISE ROOF SAFETY STANDARDS

Roof construction can be one of the most hazardous operations because of the potential for falls or materials dropping onto people below and proper precautions are needed to manage the risks. As in all building work, good safety standards are essential to prevent accidents. Due consideration for roof safety is paramount not only at the design, specification and installation stages of any construction project but also throughout the normal life of the building.



Cable system and walkway. Image courtesy of Latchways plc

The Metal Cladding and Roofing Manufacturers Association (MCRMA) works closely with the Advisory Committee for Roofsafety (ACR) to ensure that all those involved in roof construction have access to the most up to date advice on safe working practices and also the legal requirements. MCRMA was a founder member of the ACR and remains actively involved in the ACR and in the drafting of publications to deal with this very important subject.

The work of the ACR initially focused on the development of a robust test method to assess the non-fragility of rooflights and their integration and incorporation into metal based roof systems. The test method detailed in ACR [M] 001-2014 (fifth edition) *Test for non-fragility of Large Element Roofing Assemblies* (generally known as the Red Book) was developed to simulate the worst case scenario of a person falling directly onto the surface of the roof in a position which was deemed to be the most onerous.

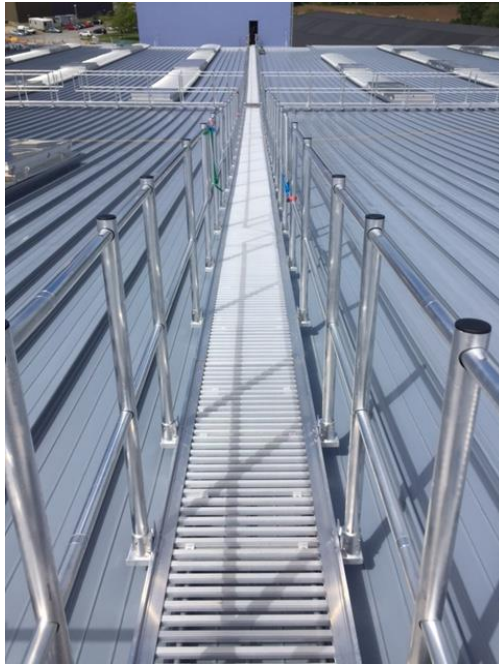
The test on a full scale assembly incorporating the sheeting element, seals and fasteners is conducted by a competent person at the system manufacturers. It involves dropping a shaped 45 Kg sand bag through a distance of 1.2 metres onto the surface of the panel and depending upon the initial result dropping it again at the same place through the same distance. A more detailed description of the test method, test procedure and assessment method can be found in the Red Book. The final results of the test determine the non- fragility of the assembly and is quoted by the manufacturer.

It is important to note that the scope of the Red Book clearly states that:

“The tests described in this document are applicable to any large element roof assembly and any accessories, which may be fitted on it, e.g., rooflights and smoke vents, and are intended to provide information about whether the particular element can support the instantaneous loads imposed by a person stumbling or falling onto it”.

In other words, ancillary products such as access hatches, smoke vents, ventilation systems, extraction hoods and soil and vent pipes which penetrate or are incorporated in the roof system should also be tested and classified for their non-fragility. MCRMA is working with ACR to draft an addendum to the Red Book proposing a more detailed test description for these ancillary products.

The retrofitting of some small to medium components which penetrate the roof system could in some instances, depending upon the position and size of the penetration with respect to the earlier classified non-fragile roof assembly, influence the non-fragility classification of the combined assembly. In many cases, the advice of an expert or the system manufacturer should be sought to confirm if additional strengthening needs to be incorporated into the construction to overcome any weakening in the area.



*Walkway complete with hand rails and steps providing safe access to the roof.
Image courtesy of M R Site Services*

Roof safety goes beyond establishing non-fragility of the roof area and component parts and it encompasses many other aspects during the various phases of construction. The published information by the ACR is wide reaching and the material standards, good practice guides and information sheets can all be easily accessed directly or via the MCRMA roof safety page.

Topics covered include guidance for competence and general fitness requirements to work on roofs (Black Book); safe working on fragile roofs or roofs with fragile elements (Green Book); recommended practice for use of horizontal safety systems in roof work (Magenta Book) and recommended practice for work on profiled sheeted roofs (Orange Book). In addition, the guides offer advice about safety netting and edge protection plus a number of other subjects.

To provide additional support for those who are directly involved with aspects of roof safety the MCRMA has published guidance documents *GD13 Non fragility of roofs: a checklist* which outlines the practical steps that should be taken before any roof work is undertaken and *GD10 Working at Heights: a fall prevention and safety checklist*.

Further valuable information can be found in the Safety Lines Group and the CDM pages on the MCRMA web site at www.mcrma.co.uk

Reference should also be made to HSG33 which identifies the main causes of accidents and ill health in roof work and ways to prevent or control risks. The document is freely available for download from <http://www.hse.gov.uk/pubns/books/hsg33.htm>

Roof safety must be of primary concern for all who are involved in roof work and MCRMA member companies comply with the exacting standards set out in the documents published by the ACR. There is a need to invest with confidence when specifying, installing and working with roofing products and systems and by choosing an MCRMA member you do so with confidence.

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