



## REDUCING THE RISK OF TIMBER FRAME FIRES DURING CONSTRUCTION

Site perimeter fencing



# Reducing the risk of timber frame fires during construction

## Site Perimeter Fencing

The UKTFA represents the majority of the timber frame industry and has prepared this data sheet in order to present to main contractors, insurers and professional advisors the recommendations of the UKTFA with regards to appropriate site security fencing.

The UKTFA is committed to continuous research and development of all relevant aspects of fire prevention. As this development yields improved ways of working, revised guidance will be made available via UKTFA members. Please visit [www.uktfa.com](http://www.uktfa.com) for the very latest information on fire safety and all other aspects of building in timber frame.

### Current guidance

*The UKTFA has current guidance on site fire prevention, Site Safe and the 16 steps to fire safety on timber frame construction sites. For further information on these, please see the end of this document*

**Step 10** of the 16 steps is site security against arson. In addition to the guidance contained within step 10 we offer the following guidance.

One of the main considerations in improving site security against arson is the use of the correct, appropriate site perimeter fencing or hoarding.

Within the risk assessment flowchart within the 16 steps document, reference is made to the use of non-climbable fencing. In this document we intend to give further guidance on the nature of what is appropriate for use e.g. what we consider non-climbable amongst other things.

### Stopping access to the construction site during out of hours

*Key points-perimeter security-method of site entry-surveillance*

The site security can be subdivided into three topics:

1. Perimeter fencing
2. Control points of entry onto site
3. Site surveillance.

There should be various degrees of control for each of these, dependent on the size of the development and the level of risk assessed to be mitigated.

**Fencing** : Consideration should be given to the type of perimeter security fencing appropriate to the site. Fencing is to stop unauthorised access therefore must be of sufficient height and style to avoid persons climbing over the fence. Recommended minimum height is 2.3m and the construction should be such that support posts are robust and not externally located.

The choice to have a hoarding which is boarded that obscures vision of the site, or a fence which allows sight of the building from outside the site boundary is one to be determined by the main contractor. Fully boarded hoarding whilst making the contents of the site invisible from outside the site also affords the arson that same invisibility once within the site. An open fence does the opposite– allows the arsonist to see into the site from outside, but keeps the arsonist visible to others once access to the site has been achieved. The use of hoardings which obscures the site contents is favoured by insurance companies and may reduce temptation from casual arsonists. The UKTFA supports this view.

### Types of fencing and hoarding

A further consideration when deciding on the need for either fencing or hoarding is one of climbability. The most common type of site perimeter fencing is the panel type with rigid mesh infill, set in concrete base feet.



**Open mesh type fencing**

Whilst this type of fencing is appropriate for some circumstances, perhaps in an area with little or now history of arson events, it is not considered suitable for areas with an arson risk.

This type of fencing offers hand and toe holds to determined climbers, particularly children and youths, who are more likely to have hands and feet of a small enough size.



**Potential arsonist using the mesh fence to get hand and foot holds**

Also, this type of fencing panel is commonly removed from its concrete feet. This is usually for the purposes of legitimate site access- to create enough space for a site worker to access the site without going through the main site entrance. As this ability to disconnect the panels from the concrete feet is well known, this gives an opportunity to an arsonist as they will likely be aware of this accessibility.

The UKTFA recommends that in areas of arson risk, this type of fencing is not used. A more appropriate solution is to use hoarding of the nature below



**Site perimeter hoarding**

This type of perimeter protection offers superior resistance to climbing. It offers no hand or foot holds. It is still possible to access the site by climbing the hoarding, but it is much more difficult for the potential arsonist to climb. The hoarding should be of a height that makes it very difficult for an individual to climb on their own. A minimum of 2.3m is recommended, and higher if possible.



**Control points of entry:** All access doors and gates around the perimeter are to be appropriately locked and secured. Again non climbable gates are to be adopted and of similar height to the fencing. The use of alarms for forced entry can be considered.

**Site Surveillance:** Security guards, CCTV cameras and alarm systems are options which may be appropriate depending on the individual nature of the site. Method statements on site surveillance should be reviewed such that regular site patrols are undertaken.

## Site Safe

Site Safe has been developed by the UKTFA to ensure that manufacturing member companies work closely with Principal Contractors/Clients to give clear concise information and assistance to ensure maximum fire safety on all construction sites, primarily designed for timber frame Site Safe principles can be extended to other forms of construction.

Adoption of Site Safe is a mandatory requirement of Membership of the UKTFA on 'Large' timber frame projects, sourcing your timber frame from non-UKTFA members does not guarantee the operation of Site Safe on your site.

Site Safe is a clear staged process which may necessitate actions to prevent site fires as a result of an individual risk assessment. The risk assessment should consider the items contained in a document, detailing 16 clear steps to a safe site.

### Site Safe is a 3 stage process:

- Stage 1** Pre-construction planning stage
- Stage 2** Timber frame erection stage
- Stage 3** Hand over by UKTFA member to principal contractor/client

## The 16 Steps

The 16 steps document containing all the detail can be accessed by following this link  
<http://www.uktfa.com/#/uktfa-literature-downloads/4538897734>

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