

# 13 Checklists

When specifying any external cladding system the designer should first establish the key factors that may affect the choice of system. This will be influenced by statutory, insurance and client requirements.

The specification will depend upon the applicable building regulations and any additional requirements of the insurer or client.

Table 14 highlights the main points to be considered before specifying a wall cladding system and Table 15 provides guidance on roof systems.

These summary tables can only provide a general guide and for more specific information reference should be made to the applicable sections of this guide and the relevant regulatory or insurance guidance documents.

## 13.1 Checklist – wall panels

Table 14. Checklist for the specification of external wall cladding panels

Check	Guidance	Comments	User notes
<b>Building regulations:</b>			
Purpose group	The building purpose group will define many fire safety requirements.	Additional requirements apply where a building is in purpose group 2A (hospitals) and purpose group 5 (assembly buildings).	
Height of top floor	In buildings where the height of the top storey exceeds 18m more onerous flame spread and flammability requirements may apply.	Most commercially available external cladding panels will comply with flame spread requirements*	
Junction with compartment or separating wall	Fire stopping is required at junctions between compartment walls and external wall.	In hospitals external walls should be fire resisting for 1m where they meet a compartment or separating wall.	
Internal lining	Surface spread of flame classification of internal lining will vary according to use and area of the internal spaces.	Most commercially available external cladding panels will comply with flame spread requirements*.	
Cavities	The classification of a surface exposed within a cavity will affect the required distance between cavity barriers.	VOIDS formed at the eaves of pitched roof should be provided with cavity barriers.	
Boundary location	If a wall is within 1m of a relevant boundary it should be fire resisting as regards both integrity and insulation.  If the wall is more than 1m from the boundary, but the extent of unprotected areas is limited, the (protected areas of the) wall should be fire resisting with full integrity and 15 minutes insulation. Restrictions will also apply on the flammability of any external facings or coatings.	If external wall is required to be fire resisting the supporting steelwork should also be fire resisting*.	
<b>Insurance requirements:</b>			
Panel types	Insurers may require non-combustible panels or panels complying with LPS 1181.		
Fire resistance	Fire resistance may be required at junctions with compartment walls or floors or where there is a potential for external fire attack.		
<b>Client requirements:</b>			
Reduction in fire damage	Consideration should be given to additional measures to reduce the likelihood of extensive damage. e.g. sprinklers, additional protection at compartment boundaries or cladding with an enhanced fire performance (e.g. use panels of limited combustibility or conforming to LPS 1181) etc.	Sprinklers will reduce the overall fire risk. Care should be taken to ensure that fire will not bypass compartment boundaries	
<b>General good practice</b>			
Recommended performance enhancements	<ul style="list-style-type: none"> <li>● through fixings to retain facing in position;</li> <li>● joints designed to remain sealed in fire;</li> <li>● closure of panel edges and penetrations to protect core from direct fire exposure.</li> </ul>		

\* Written confirmation should be obtained from the supplier confirming that the insulated panel system will comply with the necessary flame spread and fire resistance requirements.

# 13 Checklists

## 13.2 Checklist – roof

Table 15. Checklist for the specification of external roof panels

Check	Guidance	Comments	User notes
<b>Building regulations:</b>			
Purpose group	The building purpose group will define many fire safety requirements.	Additional requirements apply where building is in purpose group 2A (hospitals).	
Junction with compartment wall	Fire stopping is required at junctions between compartment walls and external wall.	Combustible material should not be taken over top of compartment wall unless proven suitable by test.	
Internal lining	Surface spread of flame classification of internal lining will vary according to use of the internal spaces.	Most commercially available metal faced panels will provide a Class 0 surface.	
Cavities	The classification of a surface exposed within a cavity will affect the required distance between cavity barriers.	Voids formed at the eaves of pitched roof should be provided with cavity barriers or fire resisting barriers as appropriate.	
Boundary location	Where roof is located within 6m of boundary coverings should be rated AA,AB or AC.		
Roof used as escape route	Any part of a roof that forms part of an escape route should provide at least 30 minutes fire resistance as regards load bearing capacity, integrity and insulation.	Insulated panels are not generally suitable for fire resisting roof constructions.	
<b>Insurance requirements:</b>			
	Protected zones where the roof provides a degree of fire resistance and the roof coverings rated AA,AB or AC may be required at junctions with compartment walls.		
<b>Client requirements:</b>			
	If fire damage is likely to have a substantial impact on the viability of a business consideration should be given to additional measures to reduce the likelihood of extensive damage. e.g. sprinklers, additional protection at compartment boundaries or cladding with an enhanced fire performance (e.g. use panels of limited combustibility or conforming to LPS 1181) etc.	Sprinklers will reduce the overall fire risk. Care should be taken to ensure that fire will not bypass compartment boundaries.	
<b>General good practice</b>			
Recommended performance enhancements	<ul style="list-style-type: none"> <li>● through fixings to retain facing in position;</li> <li>● joints designed to remain sealed in fire;</li> <li>● closure of panel edges and penetrations to protect core from direct fire exposure.</li> </ul>		

### 13.3 Checklist – fire design issues

**Project Name / identification** ..... **Date** .....

**Address** .....

#### Regulatory and other fire requirements

**Regulatory: Roofs:** Classification BS476:Pt3 or Euroclass level

**Walls:** Fire spread BS476:Pt6/7 or Euroclass level

Fire resistance BS476:22 or Euroclass level    None

No specific requirements  LPC certification  Factory Mutual certification  Other

Certification details: .....

#### Panel Details

Manufacturer / product ref.: .....

Literature on file:

Facings: Material external: steel  aluminium  Thickness   
 internal: steel  aluminium  (mm)

Insulating core: Polyurethane [PUR]  Polyisocyanurate [PIR]  Mineral fibre [MF]

Detailing	Type of detail	Drawing	N/A	Comments
<b>Internal closures – Wall</b>	Abutment to brickwork			
	External corner			
	Internal corner			
	Drip detail: to floor slab			
	Window detail: head			
	Window detail: cill			
	Door detail: head			
	Door detail: cill			
	Wall break joint / stack detail			
	Penetrations through panel			
<b>Internal closures – Roof</b>	Roof: Internal ridge			
	Roof / wall (verge – parapet)			
	Roof / wall (eaves)			
	Valley gutter			
	Roof ventilators			
	Soffit			
	Penetrations – hot flues			
<b>Other</b>				

#### Site applied seals and insulation

MF Type: Required  M/f; reference; density .....

PUR / PIR: Required  M/f; reference; .....  
 site applied foam standard or FR grade .....

## 13.4 Checklist – installation details

**Project Name / identification** ..... **Installation date** .....

**Address** .....

**Roofs:** Manufacturer ..... Type / ref .....

Core type: PUR  PIR  MF  Other

Certification: None  LPC  FM

**Walls:** Manufacturer ..... Type / ref .....

Core type: PUR  PIR  MF  Other

Certification: None  LPC  FM

**Certification reference** .....

### Panel erection

Installed to manufacturer's requirements .....

Installed to LPC / FM requirements [where required] .....

### Detailing

Type of detail	Metal closures		Site applied Insulation/Fire retardant foam* Type and location
	Thickness	Fixing centres	
Abutment to brickwork			
External corner			
Internal corner			
Drip detail: to floor slab			
Window detail: head			
Window detail: cill			
Door detail: head			
Door detail: cill			
Wall break joint / stack detail			
Penetrations through panel			
Roof: Internal ridge			
Roof / wall (verge – parapet)			
Roof / wall (eaves)			
Valley gutter			
Roof ventilators			
Soffit			
Penetrations – hot flues			
Other			

\* Site applied seals and insulation. Refers to fire retardant foam used as an additional insulation or air seal measure between the insulated panels and the abutting element and closure.