

# System 24

## Kingspan Panel Adaptor

The Metal Technology Thermally Broken Panel Adaptor System has been designed to offer the specifier the advantages of polyamide thermal break technology in meeting the latest thermal requirements of the current building regulations.



## Specification Overview

### Introduction

The basic suite has been designed to fit 70, 80 or 100mm thick Kingspan panels. The system is capable of accommodating the majority of other Metal Technology window systems. Various other profiles can be designed and incorporated allowing architects to achieve flexible designs. The windows are glazed internally or externally to accommodate a range of glazing options. Fixed panes may also be externally glazed with the addition of a liner bar.

As with all Metal Technology systems, the Panel Adaptor System is manufactured to exacting standards enabling economy to be combined with strength to give many years of aesthetic, trouble-free operation.

### Thermal Performance

Metal Technology System 24, in conjunction with the correct glass specification is designed to comply with the latest thermal requirements of the current building regulations (see separate document on compliance with thermal regulations).

### Scope

This specification defines materials, construction, finishes and size limits for the System 24 Panel Adaptor.

### Materials

Aluminum profiles are extruded from aluminium alloy 6060T6, T5 or T4 complying with the recommendations of BS EN 12020-2/BS EN 755-Parts 1 to 9. Polyamide thermal breaks are produced from glass reinforced nylon sections designed to withstand temperatures in excess of 200°C, allowing the sections to be powder coated after thermal breaking.

### Finishes

The range of sections can be provided in either of the following range of finishes:

1. Anodised to BS EN 12373-1 or BS 3987
2. Powder organic coated to BS 6496 or BS EN 12206-1

The System 24 window can accommodate a different colour/finish internally to that used externally.

### Construction

Cill/jamb members are mitre cut at 45°, corners are reinforced with extruded aluminum crimping cleats and corner braces. A secure joint is formed by pneumatically crimping into the extruded crimping cleat. Head/jamb are mechanically fixed with angle cleats and joint blocks.

All frame joints are sealed during construction against entry of water. Extruded weatherstrips and glazing gaskets are provided to resist the ingress of water. Metal Technology recommend that windows must be jointed with the pressure plate (404) at every panel joint.

The Panel Adaptor system is designed to be installed at the same time as the insulated panels.

### Maximum Size Limits

The size limits for the windows inserted into the panel adaptor system should be in accordance with the relevant system manual. The size limits for the panel adaptor frame shall not exceed:

Maximum width not greater than Panel Width  
Maximum height not greater than 1.8 metres.

In addition to the above, fabricators shall give consideration to the maximum sizes that they are able to safely handle without damaging the sealed corners.

### Performance

Air permeability - BS 6375 : Pt. 1  
test pressure 600 Pa  
Water tightness - BS 6375 : Pt. 1  
test pressure 600 Pa  
Wind resistance - BS 6375 : Pt. 1  
test pressure 2400 Pa

These levels of performance should be sufficient for any locations within the UK and Ireland. However should higher levels of performance be required, Metal Technology's advice should be sought.

### Development

Our policy is to continually research the market for new and improved products. We must therefore retain the right to amend specifications without prior notice. It is recognised at Metal Technology that in some instances special sections may be required for particular projects. When this occurs it may be possible to produce bespoke sections subject to there being sufficient quantity and adequate time.

