

Uniclass L3811	
CI/SB	(314) Xh4

September 2007



# Kingspan Cladding Adaptor System

Technical Data Sheet

Sapa Building System

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**sapa:**

- **Contemporary Design:** Dualframe signifies a new era in aluminium fenestration, with products that have been specifically designed to comply with the ever increasing complexity of Building Regulations, British Standards and other regulatory demands.
- **Superior thermal performance:** Dualframe comfortably exceeds the requirements of Part L 2006 of the Building Regulations (2006) for both thermal insulation and air permeability, and has been designed to be compliant with future anticipated changes. Where required, Dualframe 75 casement can achieve an 'A' Window Energy Rating.
- **Dual colour capability:** All Dualframe products can have differing finishes internally and externally.
- **Integrated design:** The Dualframe suite consists of casement, pivot, tilt/turn, sliding and reversible windows, single and double leaf doors and glazed roofing, all of which can be combined to form composite units.
- **Unique polyamide thermal barrier:** With integral bead retention leg to minimise projection of opening lights (patent applied for).
- **Accreditation:** Dualframe casement and tilt/turn windows have been awarded BSI Kitemarks to BS4873 'Specification for aluminium alloy windows' and BS7950 'Specification for enhanced security performance of casement and tilt/turn windows for domestic applications'.  
  
Dualframe doors have been awarded BSI PAS023-1 : 1999, 'General performance requirements for door assemblies; Part 1 - single leaf door assemblies to dwellings' and PAS024-1 : 1999 'enhanced security performance requirements for door assemblies; Part 1 - single leaf external door assemblies to dwellings'.  
  
Dualframe casement, tilt/turn windows and Dualframe doors meet the Secured by Design specification.  
  
Dualframe 75 casement can achieve an 'A' Window Energy Rating (WER) where required.
- **Choice of appearance:** Chamfered and Softline profiles are available to many products within the Dualframe suite, options of internal or external beading (including BS7950 compliant security) are also available.
- **Ease of maintenance:** The integration of a 'Eurogroove' features enables use of industry standard hardware, available from a variety of sources so that the product is competitive and easily maintained.

## ■ Product

Dualframe Kingspan Cladding Adaptor System.

## ■ Design Variants

Can be constructed to form a platform for integration of face-drained, Dualframe 55mm and 75mm windows into Kingspan architectural and Optimo™ wall panel range.

## ■ Application

Suitable for installation in new build or refurbishment projects, particularly residential, educational and light commercial applications.

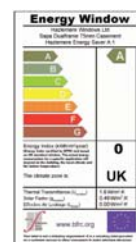
## ■ Compatibility

Designed to be compatible with Dualframe 55mm and 75mm window systems.

## ■ Finishes

A wide range of polyester powder coat finishes is available to BS EN 12206:1 2004. Anodised finishes are to BS 3987 Grade AA25 etc silver with a range of special anodised finishes on application.

For more details, or to talk to a Project Consultant, contact the Marketing Department on 01684 853500.



## Kingspan Cladding Adaptor System

### Composition and Manufacture

Aluminium profiles are extruded from aluminium alloy 6063 or 6060 T6 complying with the recommendations of BS EN 755-9:2001.

The thermal barrier section is achieved using two separate aluminium extrusions and two polyamide extrusions mechanically jointed to form a single compound profile.

#### Full Panel Integration:

Universal adaptor frame members are mitre cut at 45° and joined mechanically with extruded aluminium corner cleats to form a frame around pre-prepared window insert.

Odd-leg section is clipped in at the jambs and cill and square cut head adaptor section is fixed at the head. All joints are sealed in fabrication against water entry.

#### Cut Panel Integration:

Square cut universal adaptor is fixed at head and cill only of pre-prepared window insert. Head adaptor is fixed at head and odd-leg section clipped in at cill. Angle is fixed at jambs externally with clamping angle fixed internally on installation. All joints are sealed in fabrication against water entry.

### Weather Performance

When tested in accordance with BS6375:Part 1:1989 the combination of Kingspan panels and Dualframe windows shown in this technical data sheet and when manufactured, installed and glazed strictly to Sapa Building Systems' specifications, will achieve the following exposure categories:

Water Tightness	300pa
Air Permeability	600pa
Wind Resistance*	2400pa
Exposure Category	2400 <i>Special</i>

\*Exposure category varies with width/height of window and mullion/transom/outer frame jamb used (cut panel integration only), as these are the only unsupported members. An accurate figure can be obtained by using BS6399:Part 2 calculations and inertia values given in the Dualframe Window Technical Data Sheets which are available on request.

### Authority

BS6262: Code of practice for glazing for buildings

BS EN 755-9: Aluminium and aluminium alloys. Extruded rod/bar, tube and profiles. Profiles, tolerances on dimensions and form.

BS 3987: Specification for anodic oxide coatings on wrought aluminium for external architectural applications

BS EN 12206:1 2004: Specification for powder organic coatings for application and stoving to aluminium alloy extrusions, sheet and perforated sections for external architectural purposes.

Pr EN 10077-2: Thermal performance of windows, doors and shutters – calculation of thermal transmittance – Part 2: Numerical method for frames

### Size Limitations

Full width structural support is required at head and cill of integrated windows. Cladding adaptor frame sizes are limited by extruded section sizes and inserted window system limitations. Coupling of cladding adaptor sections is not acceptable.

The system is designed to work within Kingspan standard tolerances i.e. +/- 2mm in height and thickness. All sealants used must comply with cladding system specification.

### Glazing

The Dualframe Cladding Adaptor System can be selected to allow integration into the following Kingspan panels:

Dualframe 55mm - 60 and 70mm thick adaptor profiles

Dualframe 55mm and 75mm - 80mm thick adaptor profiles.

Note: the integral window system being used must be face drained.

### Thermal Performance

Dualframe 55mm and 75mm complies to Part L of the Building Regulations 2002, using only hard coat low emissivity glass and standard spacers to the double glazed units. Lower U-values can be achieved using double glazing units with low thermal transmission, such as 'soft coat' low emissivity glass, argon gas filling and thermally broken spacer bars.

### Site Work

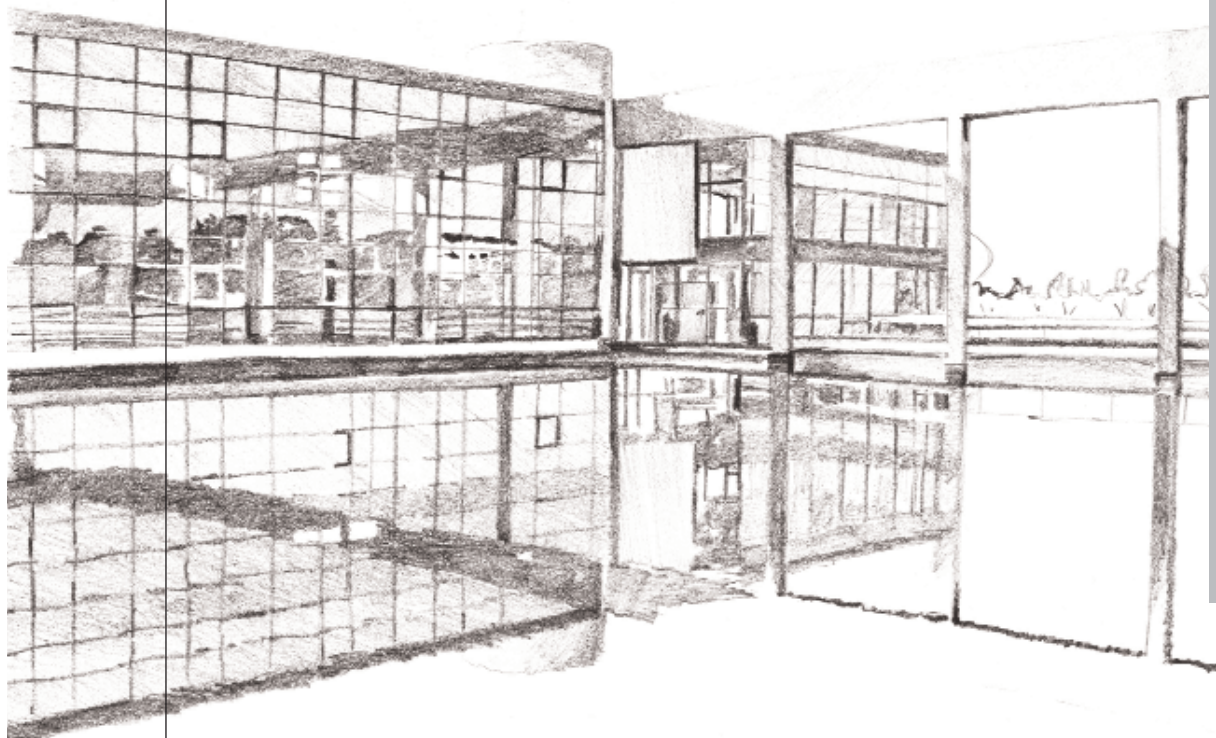
A design, installation and glazing service is available through a nationwide network of fabricators and installers. For details of suitable fabricators and installers, please contact our Marketing Department on 01684 853500.

- Our field based Project Consultants, working with our in-house Contracts Design and Administration team, provide UK specifiers with specialist advice concerning the correct application of products, giving guidance on Building Regulations, British Standards and other issues such as product specifications, usage, maintenance and safety. Complementary to this, our Product Support Department has an invaluable reservoir of experience on every aspect of our product range.
- We also appreciate that the specification process is influenced by client demands to obtain best value, and to that end, we can participate in site visits, design meetings and budgetary planning. Design stages can be formalised through written specification documents (which can be supplied in either an NBS format, or your own specification layout) and supported by samples, literature and drawings for consultation or planning issues.
- Taking this partnership approach through the whole project allows on-site monitoring of manufacturing and installation ensuring the specifier always has professional support from a worldwide group. Drawing on one of the largest fabricator and installer networks in the UK, we can provide details of specialist contractors who will quote or tender competitively for any type of contract.
- For specification assistance or details of fabricators & installers, please call our Marketing Department on 01684 853500.

### ■ Sapa Group

Sapa Building Systems Limited is a member of the worldwide Sapa Group. We develop and market high value-added profiles in aluminium and are the leading independent producer of aluminium profiles in the world, with customers in Europe, North America and Asia. In the UK, the Sapa Group has extensive multi-site extruding, re-melt, anodising and polyester powder coating facilities, offering total control and a fast and co-operative response.

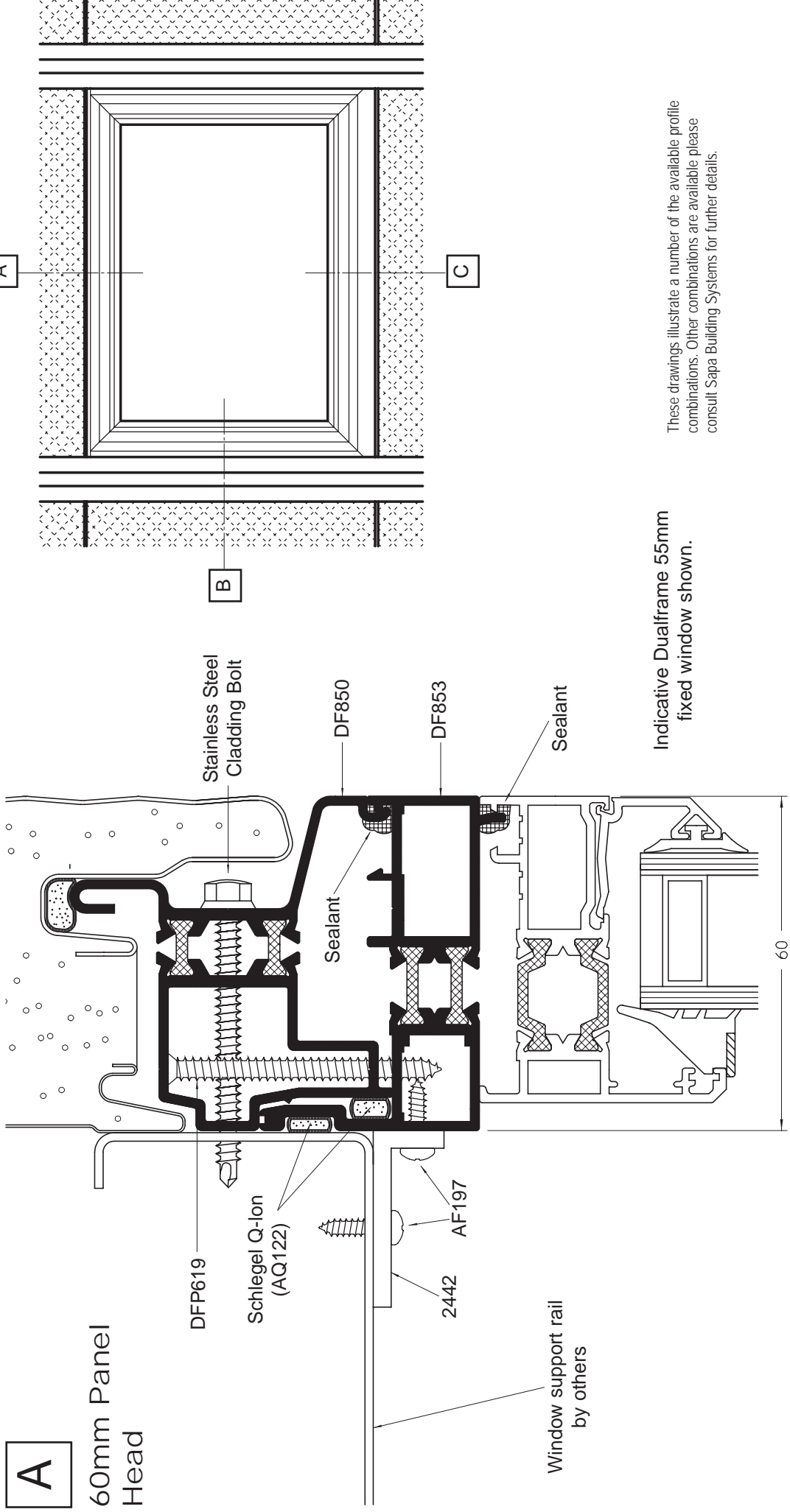
Backed by the resources of the Group, Sapa Building Systems Limited offers architects and specifiers a wide range of innovative aluminium systems for curtain walling, doors, windows and specialist applications. With a wealth of European knowledge and experience our company incorporates the highly respected Glostal, Monarch and RC System brands that have satisfied the demands of specifiers for over four decades. Our company systems have been approved under BS EN ISO 9001:2000 and we have been recognised as an Investor in People for over three years.



## GENERAL ARRANGEMENTS

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GENERAL ARRANGEMENTS



These drawings illustrate a number of the available profile combinations. Other combinations are available please consult Sapa Building Systems for further details.

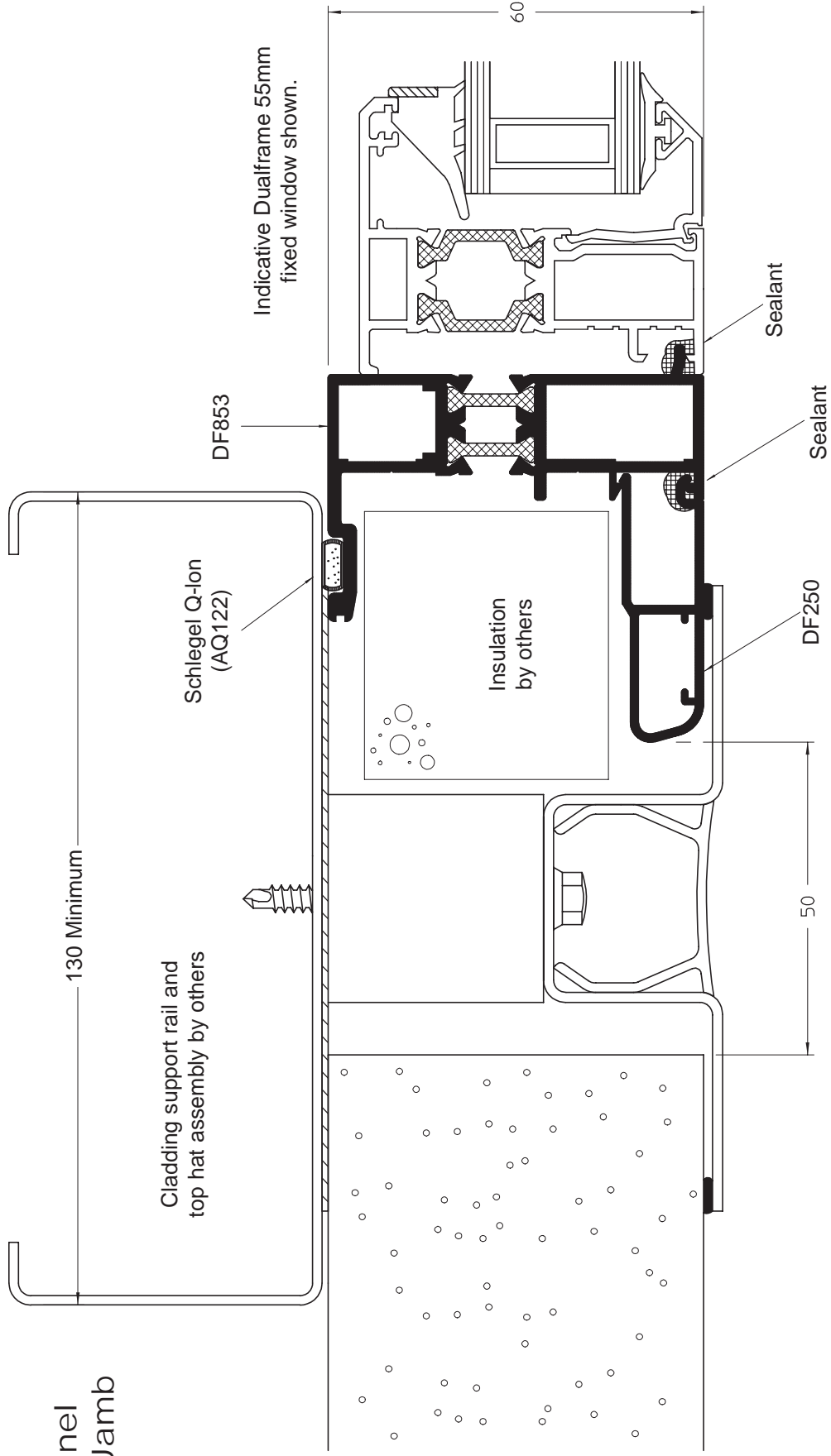




GENERAL ARRANGEMENTS

B

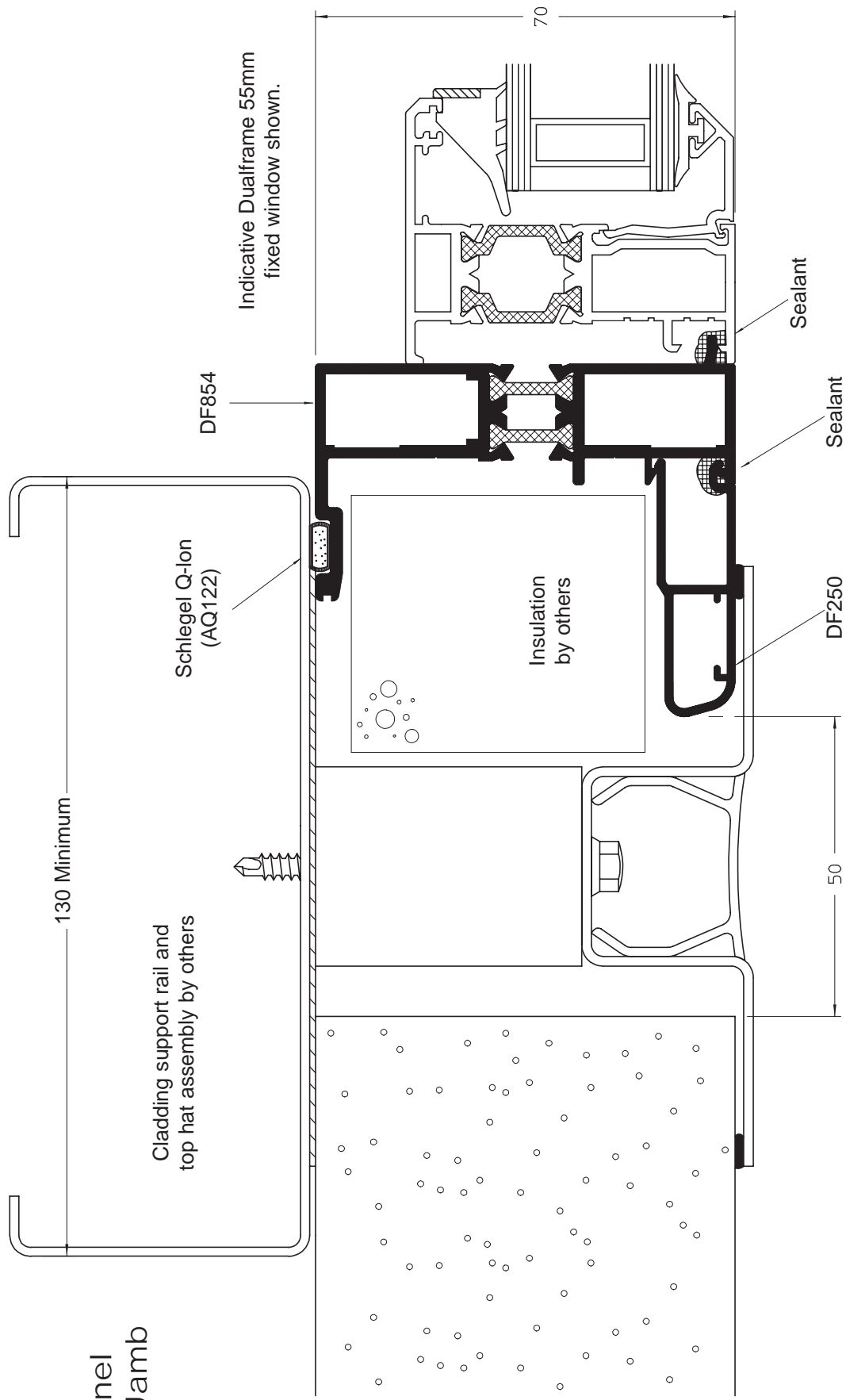
60mm Panel  
Top Hat Jamb



GENERAL ARRANGEMENTS

**B**

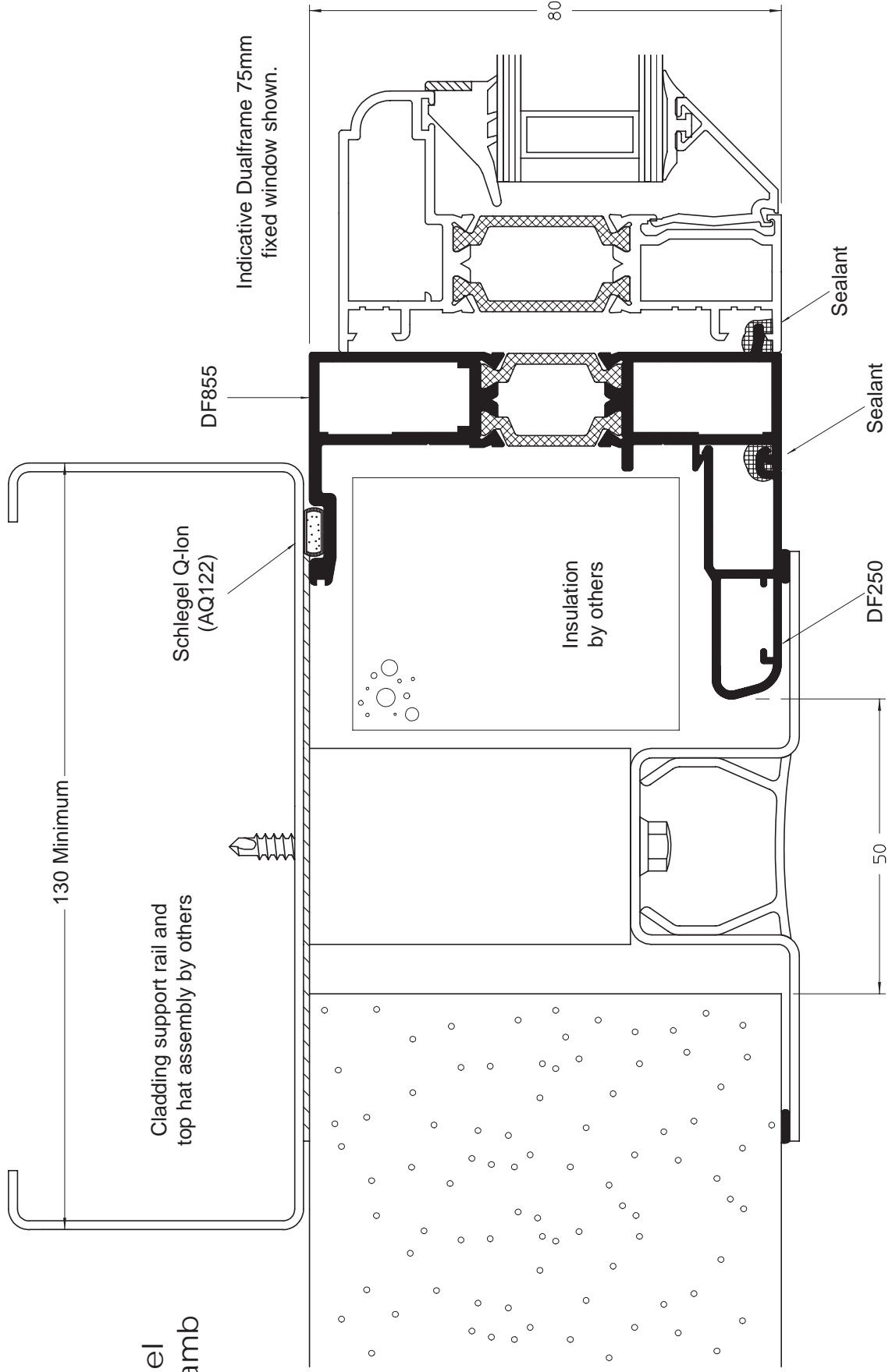
**70mm Panel  
Top Hat Jamb**



GENERAL ARRANGEMENTS

**B**

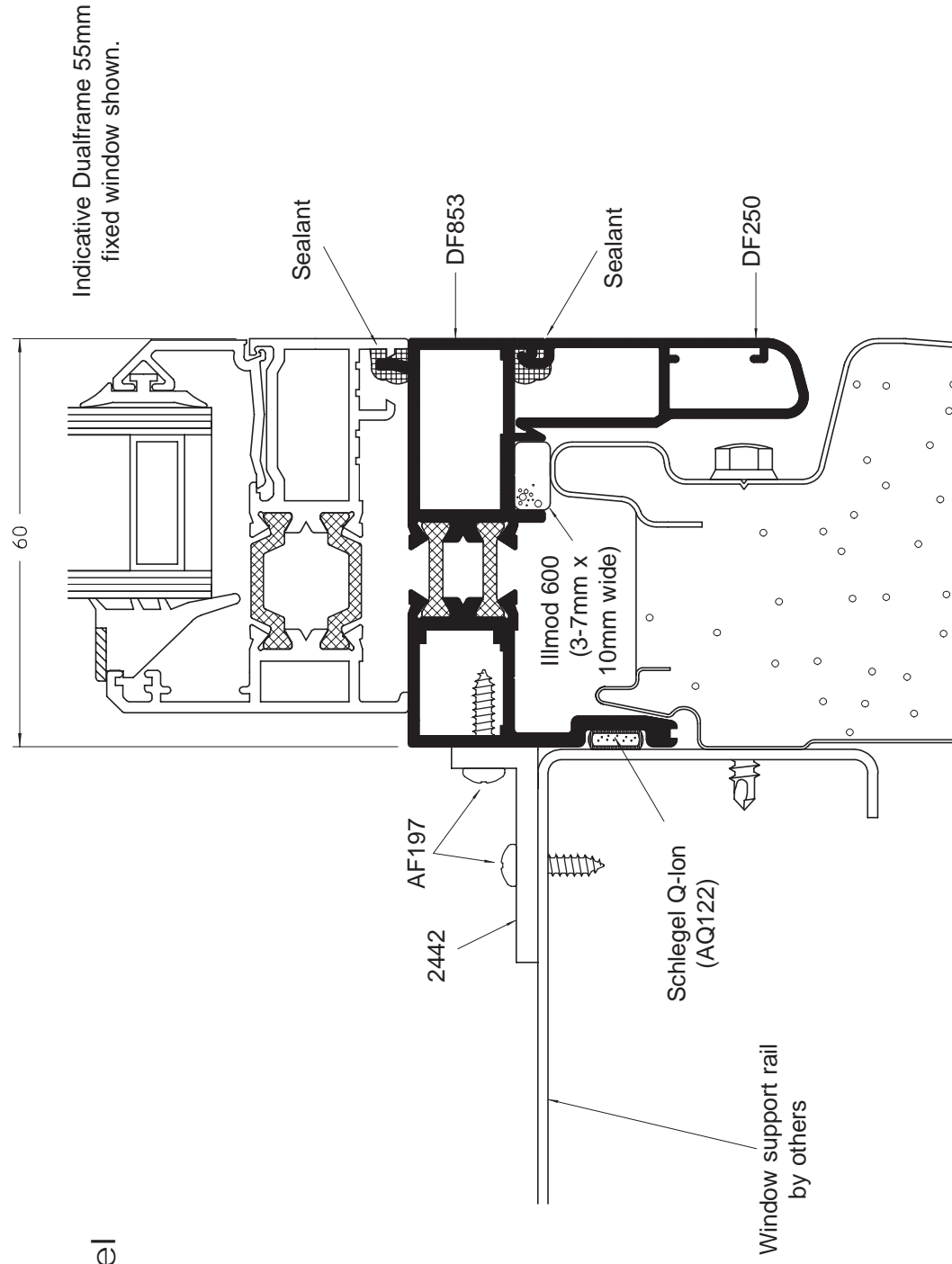
80mm Panel  
Top Hat Jamb



GENERAL ARRANGEMENTS



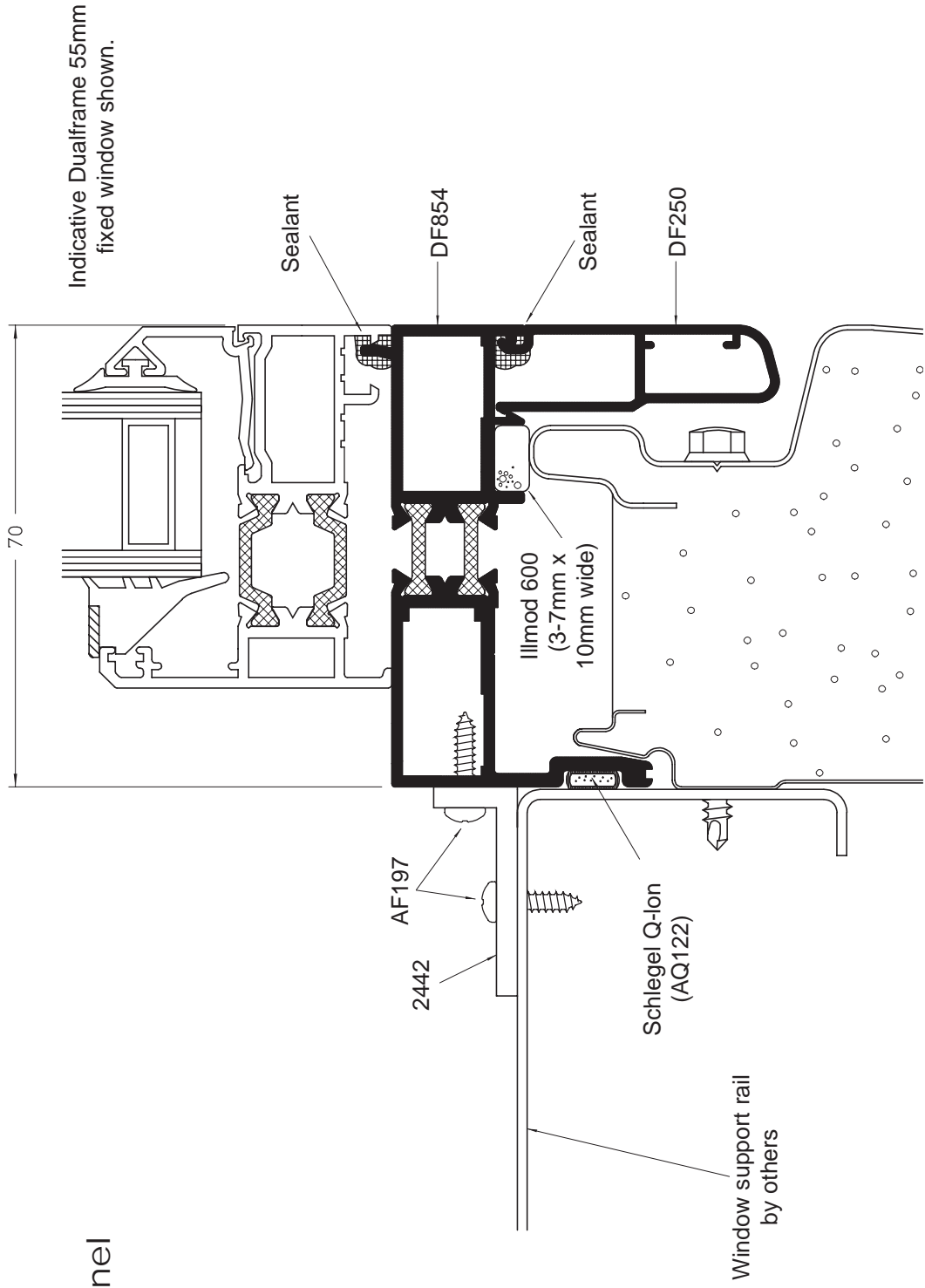
60mm Panel  
Cill



GENERAL ARRANGEMENTS



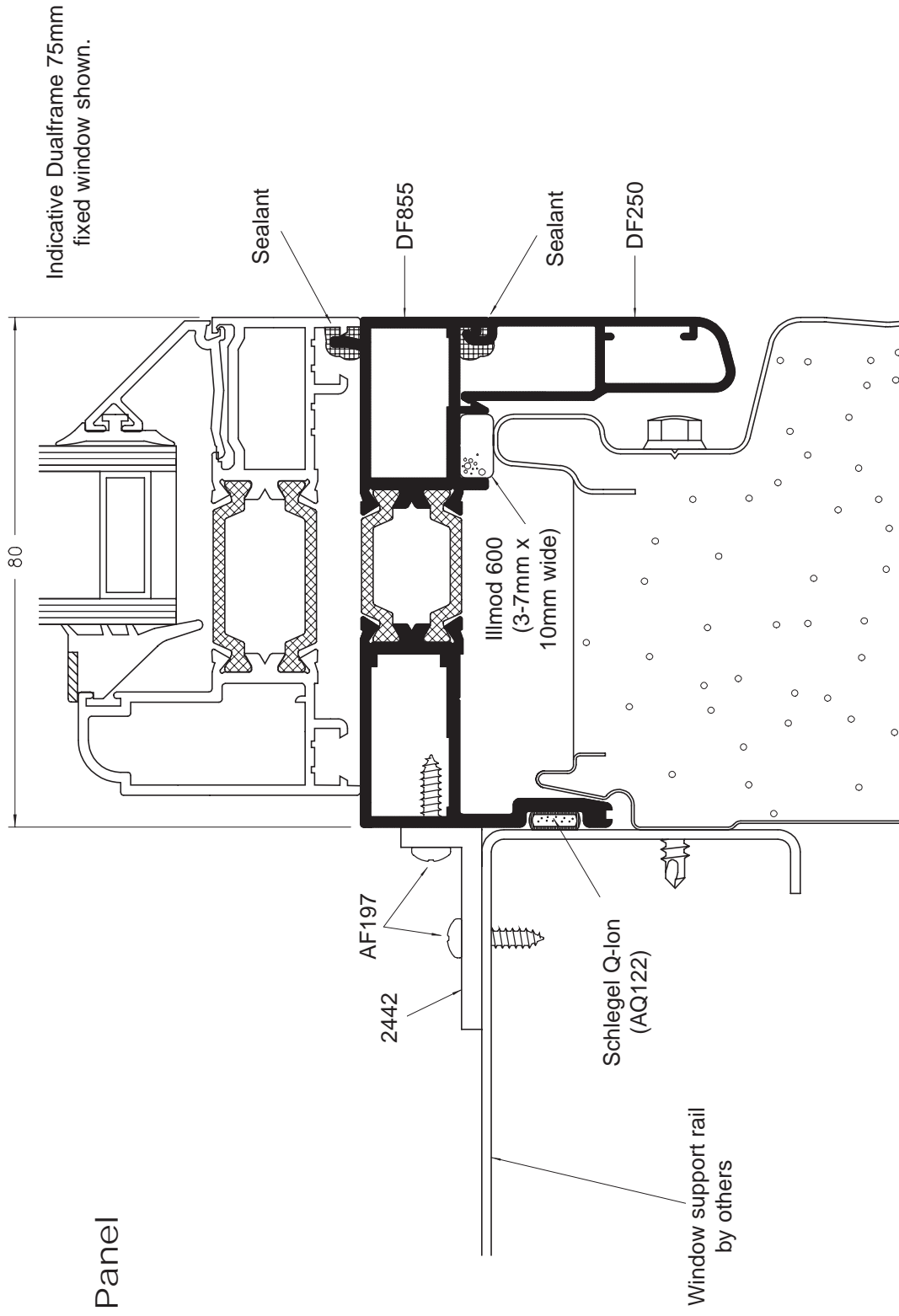
70mm Panel  
Cill



GENERAL ARRANGEMENTS



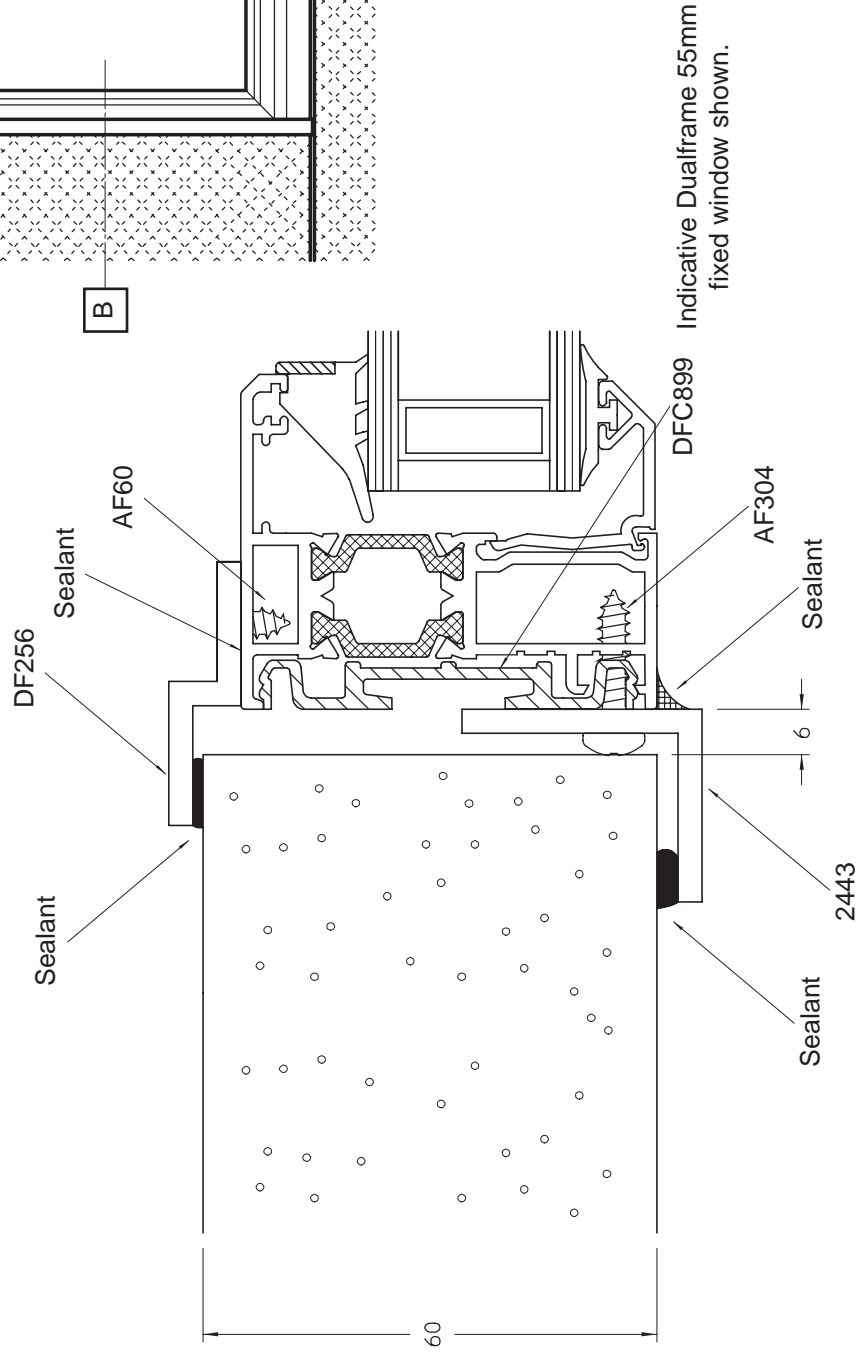
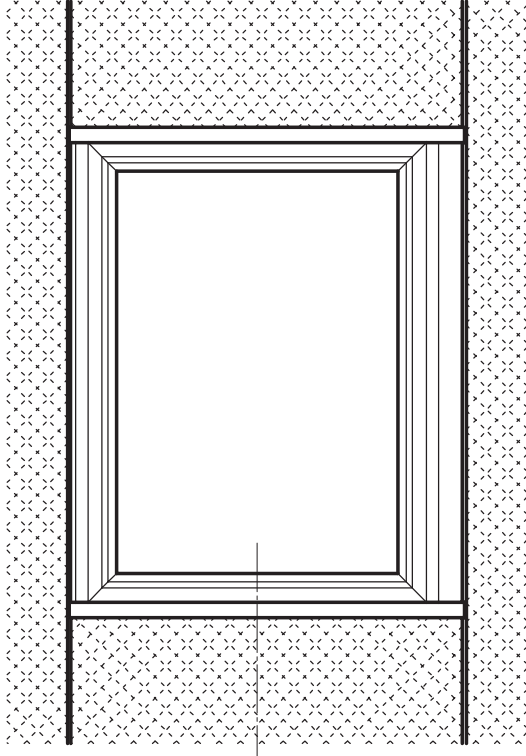
80mm Panel  
Cill



GENERAL ARRANGEMENTS

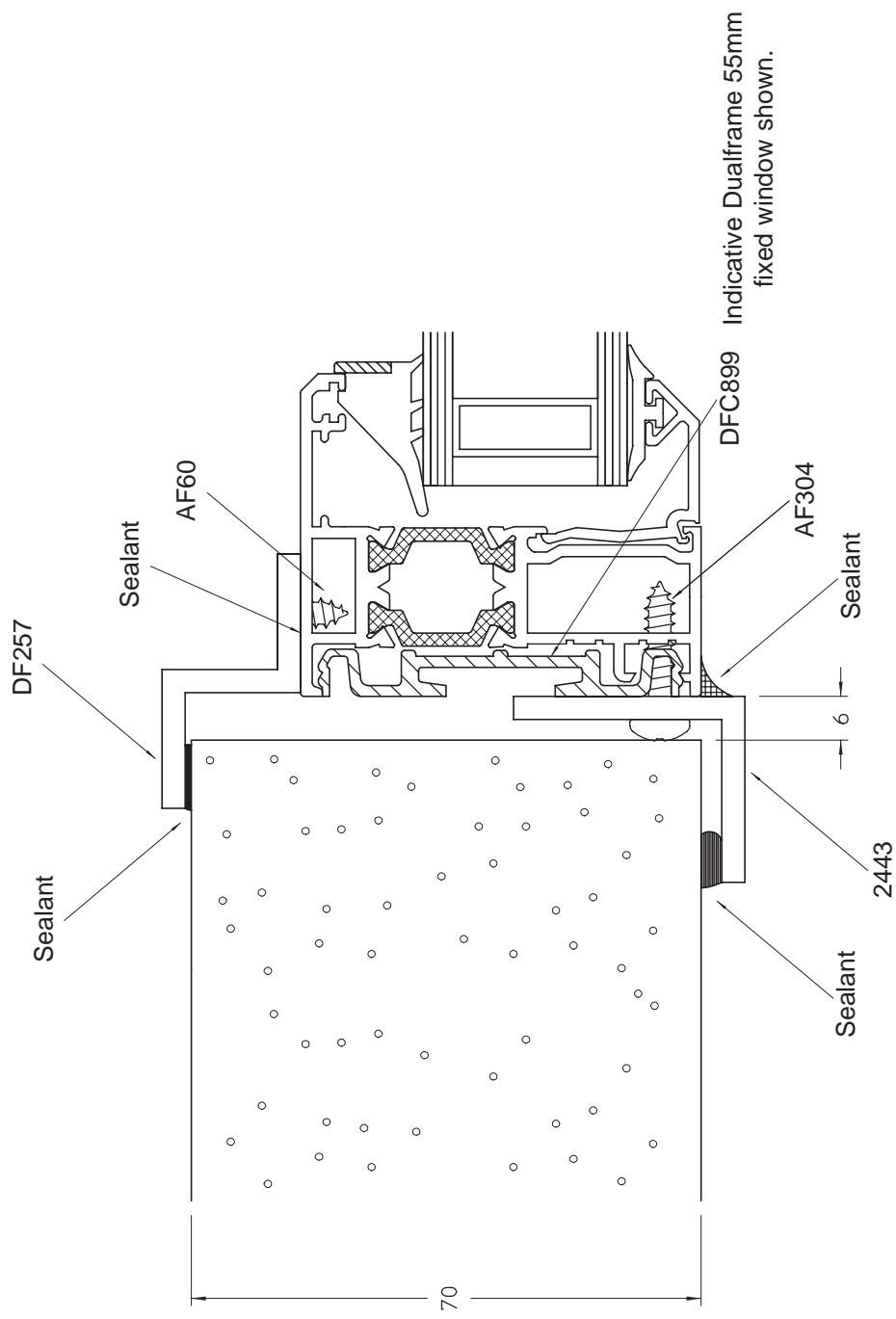
**C**

60mm Panel  
Cut Panel Jamb





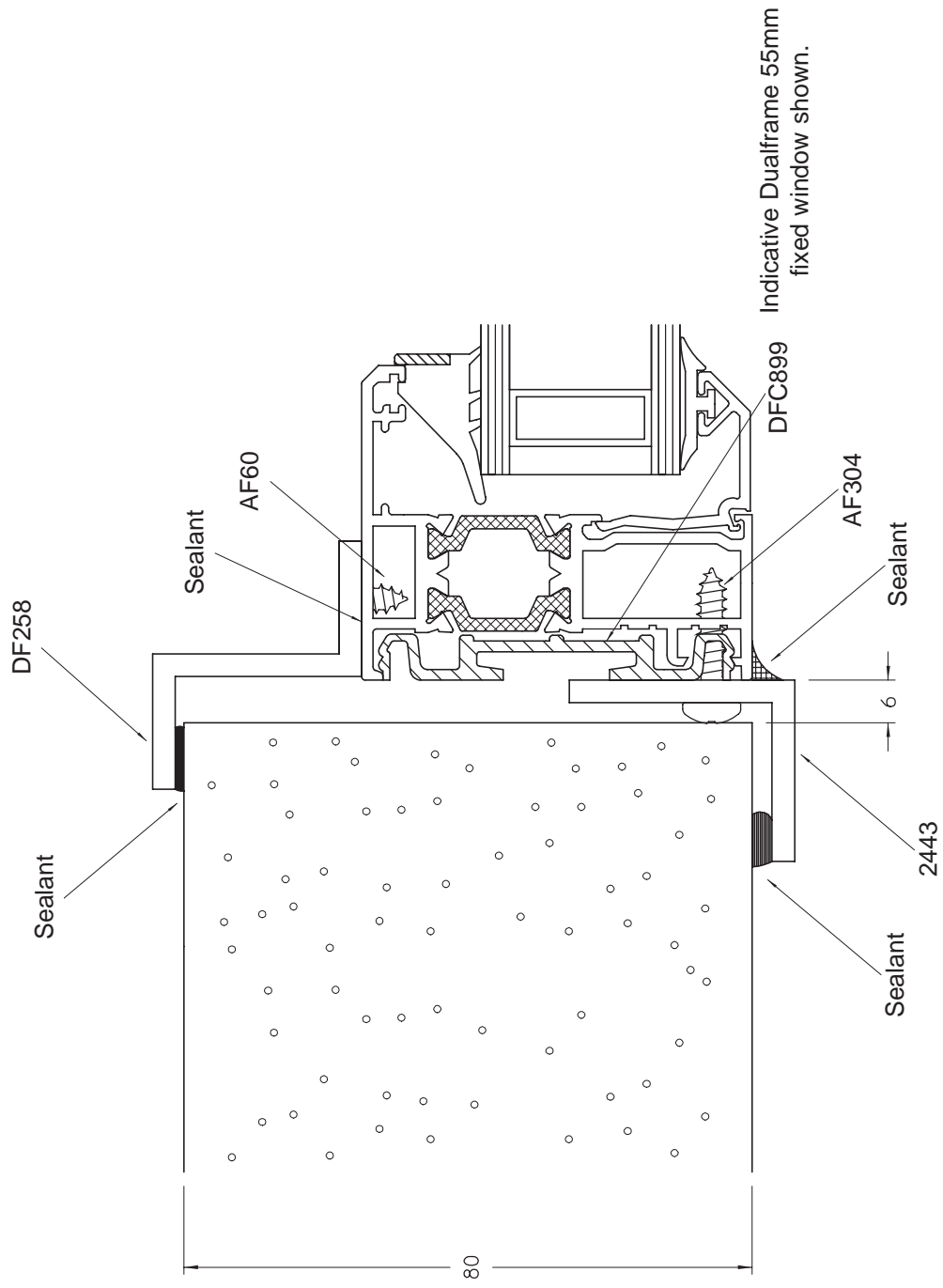
70mm Panel  
Cut Panel Jamb



GENERAL ARRANGEMENTS



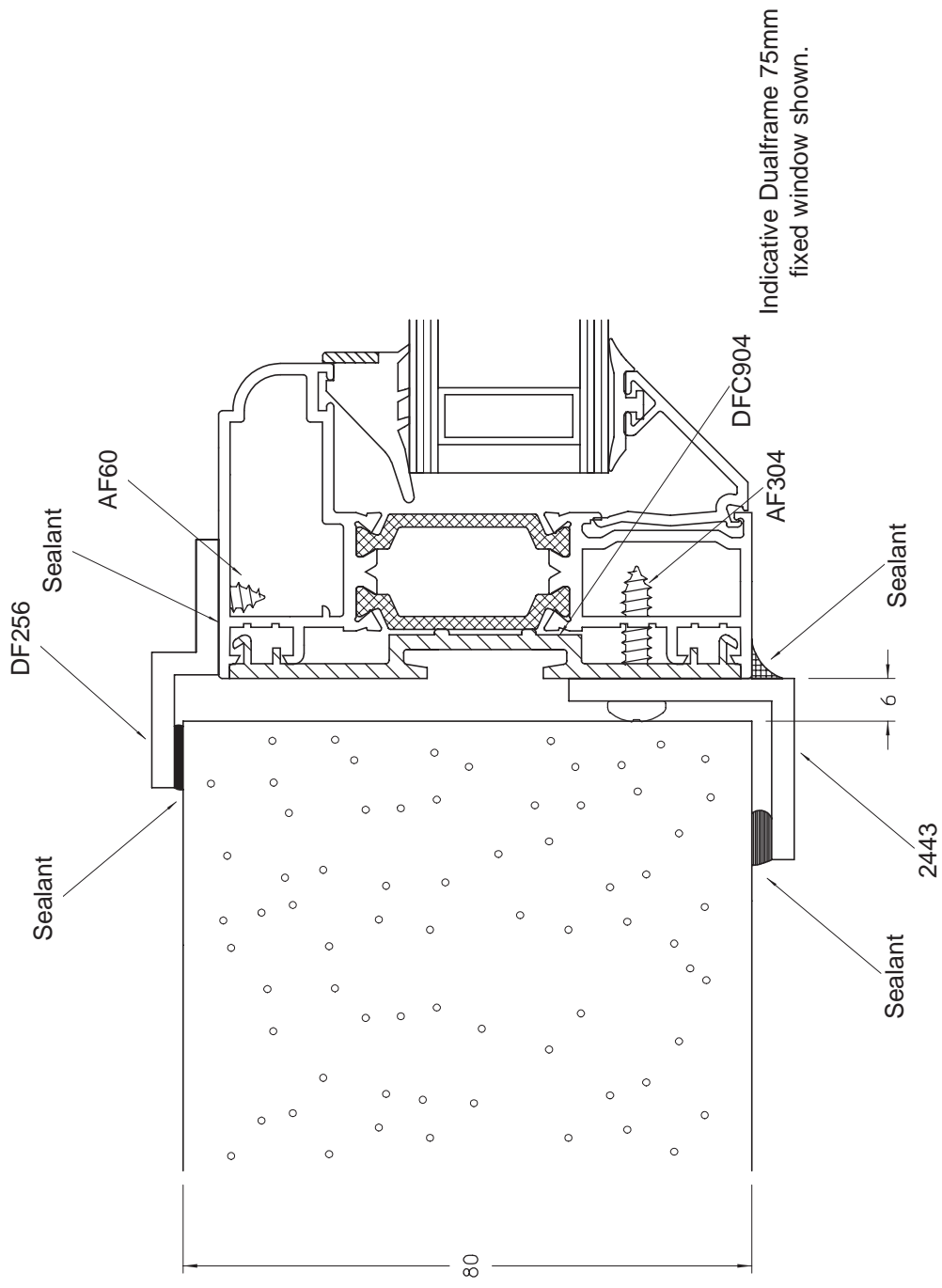
80mm Panel  
Cut Panel Jamb



GENERAL ARRANGEMENTS



80mm Panel  
Cut Panel Jamb



Our policy is one of continuous development and consequently we reserve the right to vary the products and their performance specification shown in this literature without notice.

All products and systems which Sapa supply are supplied subject to Sapa's standard Terms and Conditions of Sale which may vary from time to time.

This Technical Data Sheet is for specification guidance only. It should not be relied on for manufacturing or installation details which must instead be obtained from Sapa Building Systems' Fabrication Manuals. For further assistance please contact one of our Project Consultants by calling the Marketing Department on the number below.

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A  Group Company

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