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fastframe

The future in frame





The future in frame

The cladding system

The FastFrame system presents the fastest, simplest and most cost-effective façade support solution available on the market. FastFrame was developed by Plastestrip to overcome the problems found with other façade support systems and offers a secure economical solution to façade framing. The key to the FastFrame solution is the 3-piece design of the patented* universal component framing bracket, suitable for all building substrates, simplifying the selection and application of the brackets.

FastFrame brackets are fabricated from folded aluminium with a uniform heavy gauge wall. The base leg is strengthened by the addition of a bracing plate, punched with holes to fit over the base leg, the incorporation of which means that the back leg is thicker than that in extruded systems, making for increased strength and a greater spanning capability.

The assembly is completed by a rigid PVC isolation clip that holds the whole assembly together. During fitting, separate isolation pads can often inadvertently be omitted by contractors, leading to early degradation of the whole framing assembly owing to corrosion from the chemical reaction between the aluminium brackets and the building substrates. FastFrame eliminates this problem, also preventing cold bridging from the building itself and ensuring a longer life for the cladding installation.

The company



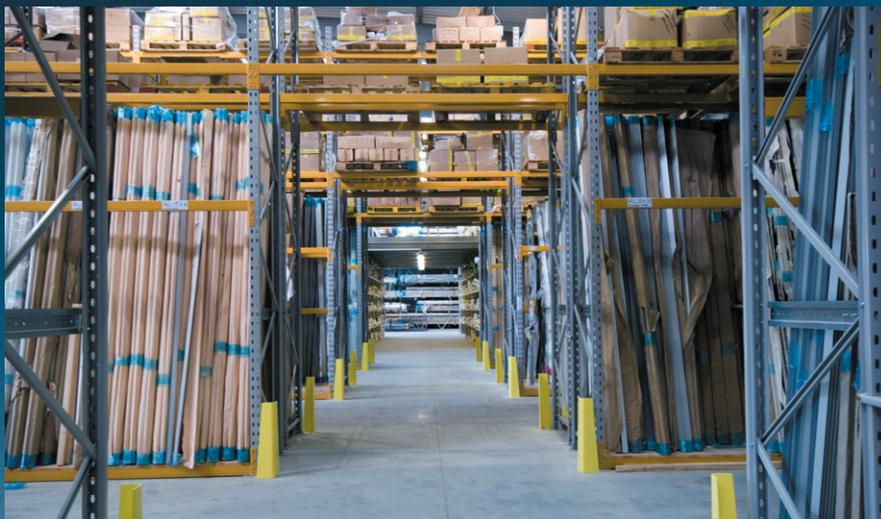
FastFrame is a division of Plastestrip, itself part of the global Amari group and a market leader in the manufacture and supply of PVC and aluminium extrusions and cladding systems to the construction industry.

Founded in 1959, Plastestrip has been based in St Austell for the last 40 years and still has family connections working within the company. Customer service is a critical element of Plastestrip's mission statement and it has achieved continued growth by exceeding its customers' demands. Always aware of its customers needs, Plastestrip is constantly involved in the innovation of new solutions to customers' problems. High calibre products, available on time and at the right price, has been the company's guiding ethos from the outset and remains so today.

Plastestrip has a philosophy of continuous improvement in its products and their manufacture, maximising the benefits to customer and end user alike. The business has been built through on-going relationships with its customers and partners. Plastestrip believes that business is done between people – not between companies and strives to deliver added value through strategic technical and marketing services in addition to quality products along with the timely deliveries they have come to expect.

Quality is in the detail at Plastestrip and it has always gone above and beyond accepted standards to bring its customers the benefits of products and materials that stand the test of time. Plastestrip incorporates dozens of innovations into its products, many of which cannot be seen, yet which put its products at the leading edge of the industry.

* Patent No 0721034.7



Partnerships

Plastestrip's principal partnerships are with its customers, but in order to provide them with the best products and services, Plastestrip also partners with only the most reliable suppliers. The FastFrame solution has been developed in close consultation with these partners, end-users and specialist cladding contractors.

Mark Heywood Associates is a leading structural engineering company specialising in rain-screen cladding solutions and worked closely with the Plastestrip design team on the development of the FastFrame system.

EJOT is one of the world's most prominent and reliable manufacturers of fastener and anchor systems. Anchoring the framing to the building structure is a critical aspect of any cladding system and to this end Plastestrip has partnered with leading fastener manufacture, EJOT Fastener Systems.

Sika is the global leader for one-part polyurethane based sealants and elastic adhesives and offers a wide range of solutions for sealing and bonding. Plastestrip acknowledge the quality and reliability of Sika structural adhesive systems for bonding cladding panels to the FastFrame façade support system.



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Benefits of the FastFrame system

The FastFrame solution offers a multitude of benefits not found in other systems, speeding installation and by doing so, offering a more reliable, cost-reduced façade support system. The FastFrame component bracket also resolves issues with other current rail and bracket aluminium framing systems. The unique design of the three-part folded aluminium bracket features a base leg much thicker than the thickness of the stalk leg. As the performance of the bracket is directly related to the thickness of its base leg, this ensures that FastFrame brackets can easily withstand the total stresses placed upon it by its own weight, the forces of the wind and the weight of the façade.

Isolation of the bracket from the building substructure is essential, both for thermal and long-term reliability purposes. Without a form of inert material between the aluminium bracket and the building, corrosion will eventually occur, weakening the framing and shortening the life of the installation. This aspect is not to be underestimated as the failure of corroded brackets could result in a disastrous failure of the whole façade. By incorporating a tough integral PVC clip to secure the 'L' piece and the base plate together, this essential isolation barrier cannot be inadvertently omitted, while at the same time speeding installation.

The design of the highly efficient FastFrame bracket also yields long term environmental benefits, contributing to meeting Building Regulation Part 'L' by limiting heat conduction away from the building and lowering heating costs. A further benefit of the stronger isolated bracket is that it facilitates wider spanning and, in many cases, a reduction in the number of brackets required to secure the façade. This brings significant savings in terms of materials and particularly in installation time.





The benefits of FastFrame would be substantial in themselves but the benefits of any product can be limited by the level of service available from its supplier. Recognising this, the system benefits of FastFrame are enhanced by the service and backup available from Plastestrip.

- The system is fully backed by independent structural engineers offering PI cover
- In-house calculations specific to every application are carried out to determine bracket spacing.
- The Project Checklist can be filled in on-line and e-mailed to Plastestrip
- FastFrame offers a range of top grade stainless steel anchors suitable for a wide variety of substrates
- On-site pull-out tests by trained technicians are offered
- FastFrame is available from a UK distribution network and is available ex-stock
- Fast delivery is available anywhere in mainland UK

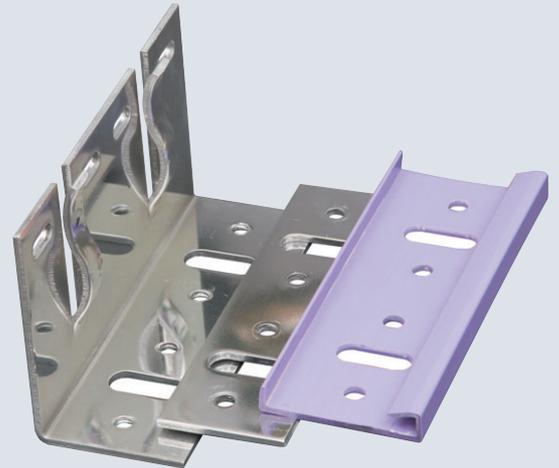


FastFrame system Components

It's the minimisation of component parts that best expresses the true simplicity and cost effectiveness of the FastFrame system. The patented three-part universal component bracket features an integral heat stabilised high rigidity PVC isolation pad. The brackets themselves are precision engineered from 3mm 5251 structural grade aluminium with tensile strength twice that of most other framing system manufacturers. The addition of the 3mm thick bracing plate doubles the effective base thickness, significantly strengthening the bracket and facilitating wide spanning and thus fewer brackets to be installed.

Depending on the weight and dimensions of the cladding panels to be attached to the frame and the calculated wind loading, a combination of single and double brackets may be employed. 10 bracket sizes from 65mm to 240mm are available, covering cavities from 80 to 280mm. The brackets are universal for both fixed point and floating point rail support and all forms of brick, block-work, concrete, masonry, timber and light steel frame (LSF).

A bespoke design service is offered where customer needs dictate a non-standard bracket size.



Carrier rails are fabricated from heavy duty 6063 T6 aluminium, 2.2mm thick. Only two rail types are required; either 'L' rails for intermediate supports or 'T' rails for extra fixing or bonding space where there is a vertical joint between façade panels. Rails available in lengths of 6m cover all cladding applications and are compatible with Rockwool Rockpanel, HPL, enamelled steel, fibre cement, ACM and other common cladding materials. FastFrame rails are also compatible with Sika Tack panel adhesive systems.

Any cladding system is only as good as the fastening system securing it to the building substrate. Plastestrip recommend and stock EJOT fastening systems of top grade stainless steel for superior strength and endurance.

This low component count enables Plastestrip to hold extensive stocks, ensuring prompt delivery to site and eliminating costly delays while the installation team await materials.





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The FastFrame system comprises only three main components



Façades by Rockpanel

FastFrame Universal Brackets

- Precision engineered from 3mm structural grade aluminium to 3mm 5251 structural grade aluminium
- Suitable for fixing to brick, block work, concrete, LSF, masonry and timber
- Designed for fixed and floating point
- Integral isolation pad of heat stabilised, high rigidity PVC
- Integral rail location clip to aid initial positioning.
- Standard sizes 65mm to 240mm – bespoke sizes available to order
- Bracket adjustability 25mm for the 65mm bracket and 32mm for all other sizes
- Tensile strength 220 – 240 N/mm²
- Unique three-part design offers superior performance and wider spanning

Fast Frame Rails

- Engineered from 2.2mm high specification 6063 T6 aluminium
- Ribbed to assist façade bonding when adhesive fixing
- Only T & L section rails necessary
- Rails supplied in lengths of 6 metres
- Thicker low-deflection bespoke rails available on request

Fastenings

- EJOT Saphir® & Super-Saphir® range
- Superior long-life stainless steel fastenings to DIN 1.4301
- Fixings for bracket to rail, steel and wood are A2 stainless steel with an 8mm hex head
- Fixings for bracket to blockwork, brick and concrete are A4 stainless steel with a 13mm hex head
- Bi-metal fixings are hardened carbon steel drill point case hardened to DIN7504
- Correct drill point geometry for reduced wastage

FastFrame system

Compatible with various façade finishes including:

Rockwool Rockpanel

High pressure laminate

Cement based sheets

Render systems

ACM

Timber

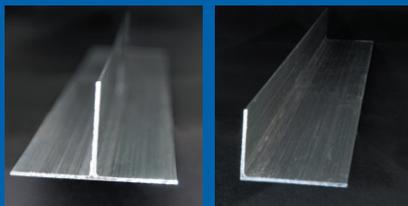
Terracotta



FastFrame Rails

2.2mm Aluminium Grade 6063 T6

RAIL CODE	T/L	SIZE (mm)
FIX/TEE/HD/100/60	T	100 x 60
FIX/ANG/HD/40/60	L	40 x 60



FastFrame Isolation Clip

The FastFrame Isolation Clip is an integral part of the bracket ensuring installation is carried out and corrosion minimised. The contact surface is rigid PVC.



FastFrame Wind Loadings Compliance

Complies with BS6399 Part 1 & 2
(Dead and Live Loads)

Complies with: BS8118, BS8200
(Design of non load bearing vertical enclosures)

FastFrame bracket range

Bracket - 3mm Aluminium 5251
Tensile strength 220-240N/mm²

BRACKET CODE	SINGLE/DOUBLE	BRACKET SIZE	MIN CAVITY	MAX CAVITY
FIX/BR/65	Single	65mm	80	105
FIX/BR/80	Single	80mm	88	120
FIX/BR/100	Single	100mm	108	140
FIX/BR/120	Single	120mm	128	160
FIX/BR/140	Single	140mm	148	180
FIX/BR/160	Single	160mm	168	200
FIX/BR/180	Single	180mm	188	220
FIX/BR/200	Single	200mm	208	240
FIX/BR/220	Single	220mm	228	260
FIX/BR/240	Single	240mm	248	280
FIX/BRD/65	Double	65mm	80	105
FIX/BRD/80	Double	80mm	88	120
FIX/BRD/100	Double	100mm	108	140
FIX/BRD/120	Double	120mm	128	160
FIX/BRD/140	Double	140mm	148	180
FIX/BRD/160	Double	160mm	168	200
FIX/BRD/180	Double	180mm	188	220
FIX/BRD/200	Double	200mm	208	240
FIX/BRD/220	Double	220mm	228	260
FIX/BRD/240	Double	240mm	248	280

Bespoke Brackets can be manufactured to order.

FastFrame

Standards and Technical Data

Rails

Aluminium 6063 T6

Comply to BS1474

Tolerance comply to BS EN-755-9

Chemical Composition BS EN 573-3:2003

Brackets

3mm Aluminium 5251

Tensile Strength 200-240N/mm²

Yield Strength 170N/mm²min (approx only)

Shear Strength 125 N/mm²

Elongation 4-8 %

Brinell Hardness 60HB

Thermal Conductivity 149W/m.k

Electrical Conductivity 39.4 %

Coefficient of thermal expansion 23.5x10⁻⁶ 1/K

Elastic Modulus 70000MPa

FastFrame system fixings

FastFrame system is compatible with the Sika Tack Panel Adhesive System.



FastFrame Fastening system



To secure the framing system to the building substrate, only the very best will do. The fastening must not only be secure but must be durable over many years and for this reason Plastestrip recommend and stock only EJOT® fasteners.

EJOT® is one of the world's largest and best regarded manufacturers of fasteners and anchor systems and has had a dramatic impact on all key areas of the industry. EJOT's products have earned their reputation as 'The Quality Connection' in the building and construction sector. Plastestrip has formed an effective partnership with EJOT® and works closely with them to specify fixing solutions for each and every FastFrame project.

Only SAPHIR® & Super SAPHIR® stainless steel self-drill / tapping fastenings of typically 4.8mm to 10mm diameter are specified for FastFrame installations. Ejot Super Saphir A4 stainless steel anchors embedded in nylon sleeves are recommended for anchoring the brackets to brick and block-work.

FastFrame Unique Project Checklist



Before any project proceeds accurate data on the installation must be provided and assessed prior to a recommendation being made as to component selection and fitting centres. The specification of the cladding material and the area to be clad is critical as are details such as span deflection, fixing centres and standoff and must be provided from the outset. Of great importance is data on wind loading and the material and condition of the substructure. Wind-loading data can be obtained from the project engineering team and data on fixing centres and deflection can be obtained from the manufacturer of the cladding to be employed. The foregoing data should be assembled and made available to Plastestrip so that their recommendations can be made.

To facilitate the provision of this data, Plastestrip has created the FastFrame Project Checklist. This can either be filled in as hard copy or on-line on the FastFrame website. In a very simple format, it assembles on one sheet, all the relevant data that enables Plastestrip's technical department to advise on component selection and fixing centres quickly and accurately. Based upon the provision of accurate data, Plastestrip will respond promptly with recommendations on FastFrame support centres and the type and number of brackets required.

FastFrame Fastening Systems

Only top quality fasteners are recommended by FastFrame. Shown here are some of the standard fixings supplied in conjunction with EJOT.



FIXING CODE	APPLICATION	EMBEDMENT MM	HOLE DIA MM	LENGTH/ MATERIAL
SDF-KB-10 x L E 	For fixing bracket to concrete and brick	50mm	10mm	60, 80, 100 A4 stainless steel setscrew. Nylon sleeve.
SDF-KB-10L x L E 	For fixing bracket to frame to honeycomb brick	90mm	10mm	120, 140, 160 A4 stainless steel setscrew. Nylon sleeve.
SDF-KB-10U x L E 	For fixing bracket to lower density concrete and concrete blockwork	70mm	10mm	80, 100, 120 A4 stainless steel setscrew. Nylon sleeve.
SDF-KB-10S x L E 	For fixing bracket to frame to aerated concrete block	70mm	10mm	80, 100, 120 A4 stainless steel setscrew. Nylon sleeve.
JT3-3-6.3 x 50 	Fixing bracket to steel 1.5mm to 3mm	-	-	6.3 x 50 A2 stainless steel Bi-met.
JT3-2-6.5 x 50 	Fixing bracket to timber	-	-	6.5 x 50 A2 stainless steel Bi-met.
JT4-4-4.8 x 19 	Fixing rail to bracket	-	-	4.8 x 19 A2 stainless steel fastener



Warranty Full details of our Warranty are available on request.

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All data in this brochure is provided in good faith and was correct at the time of going to press.

FastFrame is part of the Plasticlad range of products

