



Product & Installation Guide

Apex

225mm high aluminium planter edging



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Aluminium angle planter edging

225mm high L-profile edging for creating durable planters. Standard mill finish aluminium from stock, with bronze-effect finish available on request.



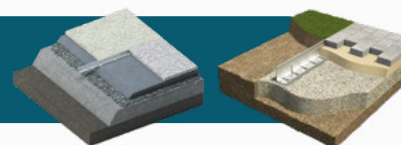
Benefits:

- Highest quality durable aluminium alloy that won't corrode
- Create clean straight lines by hand
- Pre-formed angles for accurate internal and external corners
- Fast, simple installation saves time and money
- A strong base and profile of average 6mm thickness gives stability to a refined design
- Works between all hard/soft surface types

Suitable for:

- Blocks and pavers
- Low level planting
- Roof planting
- Compatible with roof terrace systems

Edging Height		225 mm	Internal Corners	External Corners
Rigid Version		103030	101031	103032
Dimensions	Edging thickness (top bead)	12 mm	12 mm	12 mm
	Edging length	2500 mm	2500 mm	150 mm x 150 mm
	Average edging thickness	6 mm	6 mm	6 mm
	Edging foot width	85 mm	85 mm	85 mm
	Fixing stake length	250 mm	250 mm	
Available finishes		Mill finish/anodised bronze finish or powder coated to any RAL colour on special request.		
Material Specification		6005 aluminium		
Recycled content		Part recycled/ 100% recyclable		



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Tools Required

- ✓ Hammer
- ✓ Hacksaw / angle grinder
- ✓ Level
- ✓ Tape measure

Fixings included

- ✓ Strip Connectors
- ✓ Concrete fixings



1 Sub-base & set out

We recommend a sub-base of cured concrete and the concrete fixings supplied. Please contact our technical team for advice if you wish to use another sub-base type or fixing method.

2 Laying the edging

Place the edge restraint in position, using a hacksaw or angle grinder to cut to length if required. Attach the lengths of edging and corners using two strip connectors to each joint. Slide the connectors halfway into the channel on the inside of one section, then slide the next section onto the other half of the connectors.

IMPORTANT!: When laying hot surfacing material (i.e. tarmacadam) leave a 4-6mm gap between each length to allow for thermal expansion.

3 Fixing down the edging

Drill holes at 500 centres in the foot and use concrete fixings to fix securely to the base.

4 Surface laying and backfilling

Your AluExcel 225 is now immediately ready for laying hard surfaces and backfilling with soft landscaping. If laying a hot rolled surface next to AluExcel 225, ensure the first pass of the roller is 50 mm clear of the edging with the vibration turned off. the final layer should be rolled as close as possible to the edging.

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Applications

To create a low-level raised planter edge between planted areas and hard or soft landscaping in private or public gardens and public areas such as courtyards, plazas and roof terraces.

Apex 225 uses Aluminium Alloy 6005 T6 which is a high-performance alloy with high natural resistance to corrosive conditions in normal environments. It also has a higher resistance to heat than other aluminium alloys making it suitable for use with hot asphalt or tarmacadam surfacing up to 180°C.

Installation information¹

By mounting on a cured concrete foundation using the concrete fixings supplied. Other sub-base materials can be used – please contact our technical team to discuss.

Lengths can be joined using a strip connector fitted onto the inside face of the product.

Storage & Handling

The product is securely packed in a single-flute cardboard carton to ensure no movement of the product in transit and each carton is sealed with fibre tape. Depending on the size/weight of the consignment this may be palletised.

Whilst there are no specific weight restrictions on what is or is not safe to lift in manual handling, an assessment of the health and safety risks should be undertaken and measures taken to reduce the risk of injury so far as reasonably practicable.

The following guidelines may be useful:

- a) Each person should be fully trained in manual handling techniques.
- b) The use of handling aids such as a trolley, folk-lift, pallet truck or conveyor should be used if moving large volumes of cartons.
- c) Break up large consignments into more manageable loads.
- d) Ensure that the product is stored at a reasonable height, so avoiding the lifting of cartons from floor level or above shoulder height.
- e) Reduce carrying distances of cartons.

Protective Equipment

We recommend that PPE (Personal Protective Equipment) is used when installing Apex:

- a) Good strong safety boots/shoes to protect the feet.
- b) Protective eyewear such as safety glasses.
- c) Strong gloves to protect the hands.
- d) If using loud cutting equipment then ear plugs or defenders should be worn.

First Aid

The Health and Safety Regulations 1981 require all construction sites to have the following:

- a) A first aid box with enough equipment to cope with the number of workers on site.
- b) An Appointed Person to take charge of first-aid arrangements. The Appointed Person looks after first aid equipment and facilities and calls the emergency services when required. Appointed Persons do not need first-aid training.
- c) A First-Aider who has undertaken training and holds an HSE-approved qualification to administer first aid. This means that they must hold a valid certificate of competence in either:
 - 1. First aid at work (FAW) issued by a training organisation approved by HSE
 - 2. Emergency first aid at work (EFAW) issued by a training organisation approved by HSE
 - 3. A recognised Awarding body of Ofqual/Scottish Qualifications Authority.
- d) The number of first-aiders will depend on the site.
- e) Information should be displayed clearly on site telling workers the name of the Appointed Person(s) or First Aider(s) and where to find them.

Fire Protection

Apex 225 is made using Aluminium Alloy 6005 T6 which does not burn and is not a fire hazard.

Stability

Aluminium Alloy 6005A T6 grade alloy is a high-performance alloy. It has a higher degree of strength, durability and resistance to heat than the less robust 6063-grade alloy.

All building materials are eventually degraded by weathering, corrosion, rot and decay. Aluminium's natural ability to resist these influences better than many materials is one of its most widely appreciated features.

Aluminium reacts with the oxygen in the air to form an extremely thin layer of oxide; this layer is dense and provides excellent corrosion protection, and is self-repairing if damaged.

In its unprotected 'Mill Finish' form aluminium is used very successfully for long-life everyday products making Apex exceptionally suitable for use as a commercial landscape edging system.

¹The Costs and Installation Information given in this document are intended as a guide only. We recommend that formal quotations and professional opinions are obtained before work is commissioned. ExcelEdge accepts no responsibility for any damage or loss as a result of using the Installation Information. We will be happy to engage in any discussion concerning specific project applications.

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Environmental Issues

Apex 225 is manufactured from recycled aluminium (80% recycled content minimum) and is 100% recyclable. As a result, the whole life cost of aluminium edging is excellent as it is sold for recycling not paid disposal. The 20% virgin aluminium is blended with the recycled content to help achieve the proper chemical content for the alloy specification, which gives the specified mechanical properties for strength. Scrap aluminium is a valuable resource and can be recycled repeatedly.

There are plenty of raw materials for the production of aluminium. In a variety of forms, aluminium compounds make up a full 8% of the Earth's crust. Bauxite is the main starting point in the production of aluminium and given current rates of production there is enough bauxite to last another 200 to 400 years; this is based upon no increases in the use of recycled aluminium and no further discoveries of bauxite. Furthermore, the volume of aluminium being recycled is at a level where the requirement for virgin alumina is decreasing – further lessening the environmental impact.

Get in touch to discuss your next project.

Supporting Documents

More information on AluExcel 225 can be found at www.kinley.co.uk in the Resource Centre. In particular, look for the CAD Drawings and Edging Book.

Loading Analysis²

Loading analysis was undertaken on the AluExcel 75mm edging using Finite Element Analysis. The analysis was based on a distributed load of 500mm directly down onto the top of the edging. On the distributed load test, failure occurred once loading reached 28500N. More information on its Finite Element Analysis testing is available upon request.

Handling and hazards



SHARP CORNERS AND EDGES!

Wear gloves



BE SAFE!

Wear high visibility clothing, hard hats, and any other PPE required on site.

DISCLAIMER

These instructions are for guidance only and the installer is responsible to use their discretion to install the products in the best possible way for their respective application. Kinley Systems will not be held liable for product failure or poor performance as a result of poor quality installation. If any errors are found in this guide please email us at sales@kinley.co.uk

SUPPORTING DOCUMENTS

More information on Apex 225 can be found at <https://www.kinley.co.uk/resources/technical-resources>