



featherlite®
B U I L D C O N

MODERN CONSTRUCTION SOLUTIONS

DESIGNED FOR DURABILITY, PRECISION AND PERFORMANCE



WHAT IS FEATHERLITE BLOCKS?



ENVIRONMENTAL ATTRIBUTES

- Recognized "Green Building" product
- Aids in IGBC - LEED, TERI - GRIHA Design
- Mold resistant - inorganic and breathable
- No toxic releases or off-gassing
- Promotes healthy Indoor Air Quality
- Resource efficient
- Sustainable eco-friendly products

Aerated Autoclaved Concrete is a technology developed in the mid-1920s by the Sweden. Featherlite Fly Ash Blocks consist of around 60% air, this aerated materials processed through autoclaving which entails high pressurised curing of aerated materials formed in cellular shapes, which are known as AAC elements.

These elements can be further classified into blocks, wall/floor/roof panel and lintels. The Featherlite blocks are used as a substitute for the conventional building masonry and have been widely accepted globally because of their benefits such as light weight, thermal and sound insulation, mold resistance and other benefits which ease the process of construction.



B.I.S. CODES APPLICABLE TO FEATHERLITE BLOCKS

BIS 2185 (Part-III) Specification of material

BIS 6041 Construction of AAC masonry

BIS 6441 (Part I-IX) Testing Procedure

BIS 6072, 6073 Autoclaved Reinforced panels



COMPOSITION OF FEATHERLITE BLOCKS



Fly Ash / Sand
68%



Cement OPC
15%



Quick Lime
13%



Gypsum
3.5%



Aluminium Powder
0.5%



**Crack
Proof**



**Water
Resistance**

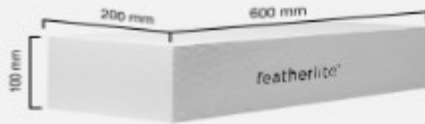


**Fire
Resistance**

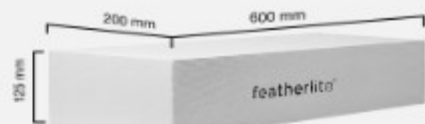


**Termite
Proof**

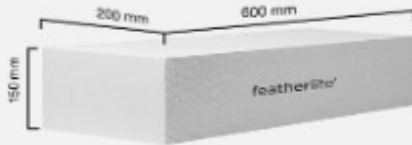




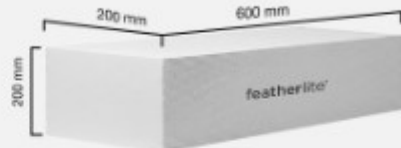
SIZE DETAILS:
 600 mm x 200 mm x 100 mm
 Per CBM No. of Qty: 83.3 pcs
 Average Weight of Block: 9.6 kg



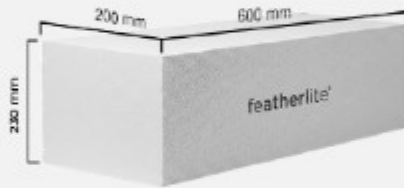
SIZE DETAILS:
 600 mm x 200 mm x 125 mm
 Per CBM No. of Qty: 66.7 pcs
 Average Weight of Block: 12.0 kg



SIZE DETAILS:
 600 mm x 200 mm x 150 mm
 Per CBM No. of Qty: 55.6 pcs
 Average Weight of Block: 14.4 kg



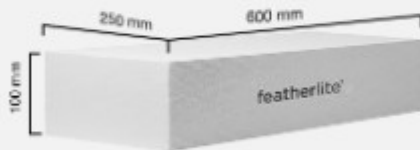
SIZE DETAILS:
 600 mm x 200 mm x 200 mm
 Per CBM No. of Qty: 41.7 pcs
 Average Weight of Block: 19.2 kg



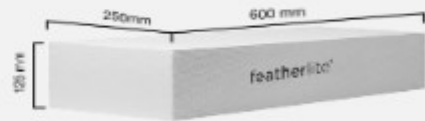
SIZE DETAILS:
 600 mm x 200 mm x 230 mm
 Average Weight of Block : 30.0 kg
 Per CBM No. of Qty: 26.7 pcs



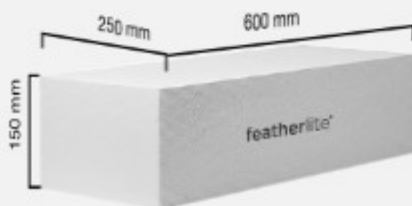
SIZE DETAILS:
 600 mm x 200 mm x 250 mm
 Per CBM No. of Qty: 33.3 pcs
 Average Weight of Block: 24.0 kg



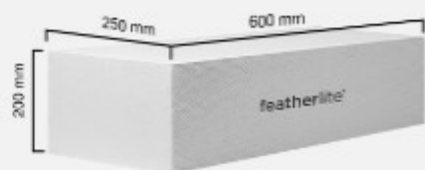
SIZE DETAILS:
 600 mm x 250 mm x 100 mm
 Per CBM No. of Qty: 66.7 pcs
 Average Weight of Block: 12.0 kg



SIZE DETAILS:
 600 mm x 250 mm x 125 mm
 Average Weight of Block: 15.0 kg
 Per CBM No. of Qty: 53.3 pcs



SIZE DETAILS:
 600 mm x 250 mm x 150 mm
 Average Weight of Block: 18.0 kg
 Per CBM No. of Qty: 44.4 pcs



SIZE DETAILS:
 600 mm x 250 mm x 200 mm
 Average Weight of Block: 24.0 kg
 Per CBM No. of Qty: 33.3 pcs



Featherlite Buildcon products are tested and certified by recognized authorities, ensuring compliance with industry standards for strength, safety, and sustainability

Each certification reflects our commitment to delivering reliable, eco-conscious, and high-performance construction solutions you can trust.

IS 2185 : Part 3



CM/L- 5300044990



» FEATURES & BENEFITS



ECO-FRIENDLY:

Featherlite Flyash Blocks are manufactured using recycled flyash, an industrial by-product that helps reduce environmental impact while conserving natural resources. By minimizing the use of clay and topsoil, these blocks protect agricultural land and significantly lower the carbon footprint compared to traditional clay bricks.



FIRE RESISTANT:

Featherlite blocks are suitable for use in areas where fire safety is recommended, as these blocks are fire resistant for about 2 to 6 hours depending on the thickness of the wall.



MINIMUM WASTAGE:

Breakage of Featherlite blocks is negligible, less than 2%, which increases the utilisation of the blocks.



LIGHT WEIGHT:

Featherlite blocks are engineered to be considerably lighter than conventional bricks without compromising structural strength. Their reduced weight decreases the overall dead load on the building, making handling easier and installation faster on site. This not only improves construction efficiency but also contributes to lower foundation costs and quicker project completion.



PEST RESISTANT:

The pest resistant properties (as the blocks are made of inorganic materials) of Featherlite Blocks keeps termites away, avoiding damages and losses



ENERGY EFFICIENT:

Thermal insulation is one of the greatest benefits of using Featherlite blocks, as the Featherlite block wall helps to maintain distinct internal and external temperatures, saving energy costs.





EARTHQUAKE RESISTANT:

The manufacturing process gives the blocks commendable strength, maintaining its light weight property due to which the steadiness of these blocks in buildings is more reliable, making it earthquake resistant.



SOUND INSULATION:

Having a commendable STC (Sound Transmission Class), Featherlite blocks elements are appropriate material for wall construction.



MINIMUM STORAGE:

Supplies are available round the year so that our buyers do not need to maintain large storage areas for blocks



COST SAVING:

Featherlite blocks are nine times larger than traditional clay bricks, reducing mortar joints by over 66 percent. Their lightweight nature lowers the building's dead load, while precise surface accuracy reduces the need for plaster. High insulation properties further help in saving energy costs.



EASY APPLICATION:

Being light in weight and larger in size, Featherlite Blocks are easy to apply and facilitate ease of work to the mason, especially in highrise projects.



TIME SAVING:

Time consumed in building walls decreases due to light weight of the product and its size over conventional clay bricks, decreasing lead time as well as installation time.



» WHY FEATHERLITE BUILDCON?



ADVANCED TECHNOLOGY

State of the art manufacturing facility equipped with ultra modern technology and imported machinery.



QUALITY CONTROL

In house advanced laboratory ensures strict testing of raw materials and finished goods to meet global quality and performance standards, with reduced wastage. Advanced high tech reduces human error. All batches are tested using lab equipment from Aimil Ltd.



PROCESSED SAND

India's only manufacturing unit using imported CDE Global machines from Ireland for sand processing, ensuring high silica content, impurity free sand, and superior strength and durability.



MONITORING

Consistent quality is maintained through continuous monitoring of raw materials, production parameters, and critical autoclaving processes.



TESTING

Finished blocks are tested as per ISI standards and cured for 96 hours before dispatch to ensure moisture free, high strength, and stable products.





CONSISTENT SUPPLY

Large covered storage of 40,000 sq. ft. ensures uninterrupted supply throughout the year, regardless of weather conditions.



PROMPT SERVICE

In house logistics enable delivery within 24 hours, including Nepal and Bhutan.



PROVEN PERFORMANCE

Use of processed sand with fly ash eliminates drying shrinkage issues common in AAC blocks. Proudly, no complaints of cracks have been reported by dealers or customers to date.



TECHNICAL SUPPORT

Customer first approach with on site technical assistance. Our team visits project sites to guide engineers and train masons for correct block installation.



COMMUNICATION & ENGAGEMENT

Dedicated technical team stays connected through regular site visits, calls, and digital channels, working closely with builders, architects, masons, and partners.



COMPLETE WALLING SOLUTIONS

Integrated blocks, tile adhesive, and readymix plaster engineered to work together for stronger bonds, faster construction, and consistent wall performance. Quality guaranteed by Featherlite Buildcon.

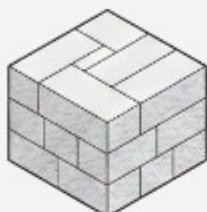


» PREPARATION & APPLICATION

...

STACKING

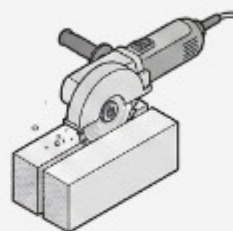
Stack on dry and even surface to avoid damage and contact with moisture



...

CUTTING OF BLOCK

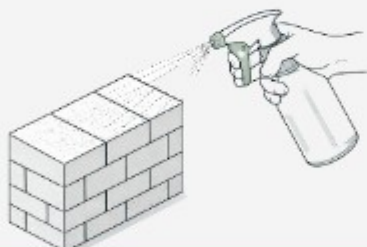
Use tool like hacksaw or rotary cutter



...

MOISTENED OF BLOCK BEFORE APPLICATION

Moisturize the surface where adhesive is applied



...

MORTAR FOR MASONRY

Thin-bed Mortar or cement: sand (1:5)



...

MORTAR THICKNESS

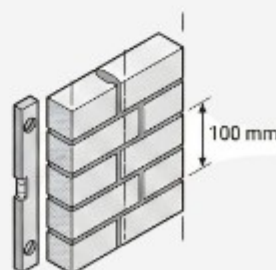
- > Conventional : 10-12 mm
- > Premix Thin-Bed : 2-3 mm



...

BOND PATTERN

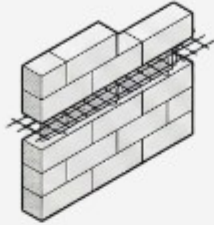
- 100 mm
- 100 mm or more





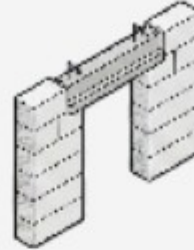
COPING BEAM

Coping beam with 2 nos 8 mm reinforcement after 1.2 mts. h



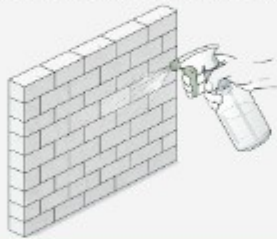
LINTEL SUPPORT

Lintel support on full block



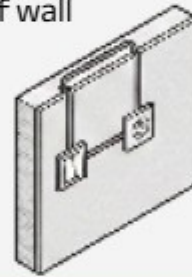
CURING OF MASONRY WALL

Curing required only for mortar joint when conventional mortar used



ELECTRIC & SANITARY CHASES

Chases to be de-grooved before plaster of wall



PLASTER

Thickness of Plaster as per given recommendation.



» TOOLS & CUTTERS FOR MASONRY



SPIRIT LEVEL



NOTCHED TROWEL



BRICK TROWEL



FLYASH BLOCK LIFTING HANDLE



HAND SAW



RUBBER Mallet



PLASTERING TROWEL



SANDING BLOCK ABRASIVE SPONGE

TECHNICAL SPECIFICATIONS

Particulars	Units	Values [#]	Requirement as per IS -2185 Part -3
Size (Length x Height)	mm	600 x 250 / 600 x 200*	NA
Size (Width)	mm	75, 100, 125, 150, 200, 225, 250, 300	NA
Size Tolerance (Maximum)	mm	± 1	L: ± 5 mm, H & W : ± 3 mm.
Compressive Strength	N/mm ²	> 4.5+	> 3 (density range 551-650 Gr-1)
Oven Dry Density	Kg/m ³	551-650	551-650
Fire Resistance	Hrs	4 (for 200 mm thick wall)	Min 2 hrs is desirable.
Thermal Conductivity (K Value)	W/mk	0.16-0.21	0.24 Max
Sound Reduction	dB	37-42	NA
Modulus of Elasticity	Mpa	2040	NA
Thermal Resistance (R Value)	m ² .K/W	0.95 (200 mm Width) @ K=0.21W/mK	Max Value is desirable.
Thermal Conductance (U Value)	W/m ² K	1.05 (200 mm Width) @ K= 0.21W/mK	Minimum Value is desirable
Drying Shrinkage (Maximum)	%	0.02	0.1 for Gr-2 & 0.05 for Gr -1
Sound Transmission Class Rating	dB	44	NA
Capillary Water Absorption	gm/dm ²	180	210 @24 Hrs (as per NFP 14306)



» TYPICAL FEATHERLITE BLOCK USAGE



CHASING ON THE BLOCKS



NAILABILITY IN THE BLOCK



DOOR FRAME FIXING

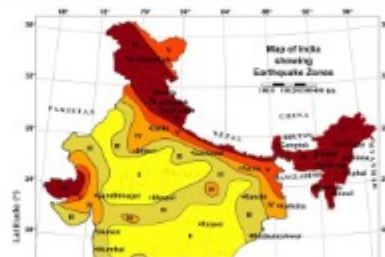


**CONDUITING IN THE
BLOCKS MASONRY**

» STRUCTURAL STRENGTH ACROSS TERRAINS



**RELIABLE STRENGTH
IN HILLY TERRAIN**



HIGH SEISMIC ZONES



**DESERT AREAS EXPOSED
TO HEAT WAVES**



**FEATHERLITE BLOCKS
AS THERMOTILE**



Block Adhesive



featherlite[®]
BUILDCON

TECHNICAL DATA

Property	Featherlite Block Adhesive
Bulk Density-	1350 to 1450 kg/m ³
Compressive Strength (ASTM C-109)-	6-7 MPa at 28 days under normal atmospheric condition
Split Tensile Strength (ASTM C-1660)-	60 to 70 psi
Tensile Strength-	0.5 MPa at 28 days under normal atmospheric condition
Water Retention-	85% to 90%
Mix Proportions-	1 part of water to 4 parts of Featherlite Block Adhesive
Pot Life-	1 hour at 27°C ± 2°C
Setting Time-	24 hours
Shelf Life-	Best before 1 year from the date of manufacturing if stored in dry area under sealed condition

COVERAGE

A 40 kg bag of Featherlite Buildcon's AAC Block Adhesive typically covers around 11.15 sq. meters with a 3 mm layer thickness.

Coverage is dependent on the smoothness and evenness of the substrate, accuracy of AAC Blocks, and the thickness of the adhesive layer used

The above values are a general guideline for Featherlite Block Adhesive when mixed with approximately **25% water by weight**



APPLICATION INSTRUCTIONS



Surface Preparation

- The surface should be clean and free from all dirt, dust, oil, grease, and bond inhibiting agents. Clean the surface using a wire brush.
- Sprinkle a little water to create moisture over the surface of the blocks before applying Featherlite block adhesive.



Mixing

- Featherlite Block Adhesive requires approximately 25% potable water by weight of material.
- Add a measured quantity of adhesive powder into water and mix using a mechanical stirrer for 2 to 3 minutes to obtain a uniform, lump free consistency.
- The mixture should be consumed within 1 hour of pot life. It is recommended not to add additional water beyond the prescribed water ratio.



Application

- It is recommended to apply Featherlite Block Adhesive in a thickness of 3 to 5 mm using a notched trowel and place the next layer of blocks on the mortar.
- Avoid application in damp conditions.
- Remove excess adhesive immediately.
- Plastering or tiling can be done after **24 hours**.





TECHNICAL DATA

As per relevant IS standards

Property	Featherlite Ready Plaster
Bulk Density	1500–1600 Kg/m ³
Water–Powder Ratio	16–19% by weight
Pot Life	~1 hour at 27°C
Compressive Strength @ 28 Days	8–9 MPa
Coverage	0.16–0.23 Kg/sq.ft/mm
Thickness per Coat	8–15 mm
Water Curing	2–3 times/day for 2–3 days
Wastage	Negligible
Final Finish	Smooth & Excellent

Notes

- All technical data is based on internal lab testing and may vary depending on site conditions.
- For specific application-related recommendations, consult Featherlite Buildcon Technical Support Team.
- Performance may vary based on workmanship, tools, and curing practices.

Safety Direction

- Featherlite Ready Plaster is non-toxic. Use gloves and goggles during application.
- Avoid contact with eyes or skin. In case of contact, rinse immediately with plenty of clean water.
- If irritation persists, seek medical attention.
- Product is non-flammable and safe for handling at site.

Shelf Life

- Featherlite Ready Plaster has a shelf life of 12 months from the date of manufacture.
- Store in a cool, dry place away from moisture.

Packaging

- 40 Kg



Featherlite Ready Plaster is a factory-made cement-based plaster enriched with premium polymer additives and well-graded sand. Designed for faster, cleaner, and more durable plastering, it is ideal for all manual plastering applications on interior and exterior walls.

SPECIFICATION

Technical properties comply with: **IS 1661–1972, IS 2250–1965, IS 2402–1963**

FEATURES & BENEFITS

- **Replaces traditional plastering** with consistent, ready-to-use quality
- **Well-graded sand and additives** ensure uniformity
- **Less curing required and superior bonding** to substrate
- **Reduced water absorption** for enhanced durability
- **Smooth and uniform finish** on all wall types
- **Quality-controlled mix** free from impurities
- **Easy and convenient** to apply
- **Faster project completion** with minimal labour effort
- **Negligible wastage** due to controlled rebound
- **Perfect for modern construction standards**

AREAS OF APPLICATION

Featherlite Ready Plaster is suitable for both interior and exterior walls.
Ideal for use on:

- Brick walls
- Block walls
- Stone surfaces
- Concrete surfaces

Recommended for well-prepared walls with plastering thickness up to 15 mm.

METHOD OF APPLICATION

Surface Preparation

- Ensure the surface is free from oil, dust, loose particles, curing compounds, and bond-inhibiting materials.
- Clean the surface using water jetting.
- For best results, slightly dampen the surface before application.

Mixing

- Add 16–19% water by weight of Featherlite Ready Plaster.
- Gradually mix the plaster into the measured water using mechanical stirring for 2–3 minutes.
- Mix until a smooth, lump-free consistency is achieved.

Application

- Apply Featherlite Ready Plaster using mortar trowels, spatula, or standard mason tools.
- Suitable for conventional plastering techniques.
- For plaster thickness above 15 mm, apply in multiple coats for best strength and finish



Tile Adhesive

TECHNICAL DATA

Property	Featherlite Tile Adhesive
Bulk Density	1400 to 1600 kg/m ³
Pot Life @ 30°C	2 to 3 hours
Open Time @ 30°C	30 minutes
Time to Adjust @ 30°C	30 minutes
Usage Time Post Application	24 hours
Slip Resistance	0.2 to 0.3 mm
Initial Tensile Strength	1.5 to 1.6 MPa
Tensile Strength After Water Immersion	1.1 to 1.2 MPa

COVERAGE

- A 20 kg bag of Featherlite Tile Adhesive typically covers **50 to 60 sq. ft. at a 3 mm bed thickness**

Coverage may vary depending on:

- Tile size
- Surface evenness
- Trowel notch size
- Application technique

PACKAGING

- 20 kg bag

APPEARANCE

- Free flowing powder

COLOUR

- Grey



FEATURES & BENEFITS

- Strong initial and final bond strength
- Excellent slip resistance for vertical applications
- Extended open time for easy tile adjustment
- Good water resistance after curing
- Smooth application with uniform consistency
- Suitable for thin bed application
- Reduces tile debonding and hollow sound
- Consistent quality and performance

SUBSTRATE

- Cement plastered surfaces
- Concrete surfaces
- Floor screeds
- Existing ceramic tile surfaces
- Brick masonry and block masonry

APPLICATION INSTRUCTIONS



Surface Preparation

- The surface should be clean, dry, and free from dust, oil, grease, or loose particles.
- Ensure the substrate is structurally sound before application.
- Dampen the surface lightly if required. Do not allow standing water.



Mixing

- Add Featherlite Tile Adhesive powder to clean potable water.
- Mix using a mechanical stirrer to obtain a smooth, lump free paste.
- Allow the mixture to rest for a few minutes and remix before use.
- Use the mixed adhesive within the specified pot life.



Application

- Apply the adhesive on the substrate using a notched trowel.
- Press the tile firmly into position ensuring full contact.
- Maintain a bed thickness of approximately 3 mm.
- Tiles can be adjusted within the open time.
- Avoid application in damp or excessively wet conditions.



About Featherlite Precast Elements

Featherlite Precast Elements are factory-manufactured concrete solutions designed to accelerate construction, ensure consistent quality, and reduce on-site work. Produced in a controlled environment with strict quality standards, our precast products offer superior strength, dimensional accuracy, and faster installation compared to conventional cast-in-situ methods. From drainage systems and boundary walls to infrastructure and railway components, Featherlite Precast Elements help deliver projects faster, safer, and more efficiently.

Products We Offer



Precast U-Drains with Covers

- Efficient stormwater and wastewater drainage solution
- Factory-manufactured for consistent quality and durability
- Faster installation than conventional cast-in-situ drains
- Suitable for roads, industrial areas, residential and commercial projects



Box Culverts

- High-strength precast structures for water passage and drainage crossings
- Ideal for roads, railways, and infrastructure projects
- High load-bearing capacity
- Reduces construction time and site labour requirements



Lego Blocks

- Modular interlocking precast concrete blocks
- Ideal for retaining walls, storage bays, and partition walls
- Quick installation without mortar
- Easy to relocate, modify, and expand





Jersey Barriers

- Designed for traffic control and safety applications
- Suitable for highways, construction zones, and restricted areas
- High impact resistance and durability
- Can be used as temporary or permanent barriers



Railway Platform Walls

- Precision-manufactured for railway infrastructure projects
- Ensures faster project execution
- Consistent dimensions and finish
- Reduces on-site construction activities



Railway Platform Coping

- Durable edge protection for railway platforms
- Manufactured to precise dimensions
- Improves platform safety and appearance
- Quick and easy installation



Railway Platform Coping (RDSO Design)

- Manufactured as per RDSO specifications
- Suitable for railway infrastructure projects across India
- Ensures compliance with railway standards
- Durable, uniform, and easy to install





High Boundary Walls

- Precast security wall solution for industrial and commercial properties
- Faster installation compared to conventional masonry walls
- Reduced maintenance requirements
- Provision for concertina coil installation for enhanced security



L-Shaped Retaining Wall Elements

- Designed for soil retention and level difference management
- Suitable for roads, embankments, industrial yards, and infrastructure projects
- High structural stability and durability
- Enables faster project completion with minimal site work



Table

Product	Size (mm)	Approx. Weight
U-Drain with Cover	300 × 300 × 2000	830 kg
U-Drain with Cover	300 × 450 × 2000	1000 kg
U-Drain with Cover	450 × 450 × 2000	1025 kg
U-Drain with Cover	450 × 600 × 2000	1200 kg
U-Drain with Cover	600 × 600 × 2000	1300 kg
U-Drain with Cover	600 × 750 × 2000	1500 kg
Box Culvert	800 × 800 × 2000 (130 mm wall thickness)	1200 kg
Box Culvert	1200 × 1400 × 2000 (130 mm wall thickness)	1800 kg
Lego Block	1200 × 600 × 600	900 kg
Jersey Barrier	610 × 900 × 3000	900 kg
Railway Platform Wall	995 × 840 × 900	800 kg
Railway Platform Coping	900 × 750 × 150 / 900 × 650 × 150	800 kg
Railway Platform Coping (RDSO Design)	1125 × 530 × 100 / 900 × 650 × 150	500 kg
High Boundary Wall System	1800 mm / 2400 mm Height (6 ft / 8 ft)	900 kg
L-Shaped Retaining Wall Element	1000 × 850 × 90	1200 kg





🌐 featherlitebuildcon.com

☎ 1800 121 110011



Corporate Office:

2nd Floor, Om Tower,
Mittal Complex, Sevoke Road,
Ward no.41, Siliguri, Darjeeling,
West Bengal- 734001

