



R35 LARGE FORMAT LIGHTWEIGHT HORIZONTAL PRESTRESSED PRECAST CONCRETE WALL PANELS

Light Duty Applications

Ideal in non-loadbearing applications where bespoke sizes & shapes are required, our R35 precast concrete wall panels offer a large format wall solution with panels being available in single sections up to 9m long & 3m high with checkouts for doors, windows or inlets etc incorporated.

With a fire rating of up to 4 hours (depending on panel thickness) this cost-effective solution is ideal for a wide range of applications, particularly where there is a requirement for a visibly high-quality finish such as in leisure centres or factories.

Our precast concrete wall panels are manufactured in high grade 60 N/mm² concrete and to recognised industry standards i.e Eurocode 2, BS5502 Part 22 and are all CE Marked. The finished surface quality of the R35 wall panels is exceptionally high.



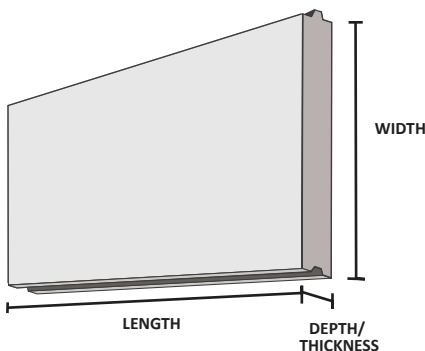
APPLICATIONS

Large format precast concrete walls panels designed to provide non structural walls for:

- Warehouses & retail stores
- Leisure centres
- Manufacturing facilities
- Low level Floor Retaining Walls

STANDARD WALL PANELS SIZES

R35 Precast Concrete Firewall Performance



WALL PANEL THICKNESS (mm)	CODE	LENGTH (m)	FIRE RATING (hrs)
125	R35-125	9.0	1
150	R35-150	10.0	1.5
180	R35-180	10.0	2
250	R35-250	10.0	4

Materials

All materials are sourced in accordance with the appropriate British Standard and in accordance with the ACP (Concrete) Ltd performance specifications.

- Concrete typical 28 days strengths are 60 N/mm²
- Concrete strength at transfer 30 N/mm²
- Water cement ratio 0.45 Maximum
- Reinforcement typically bent bar and mesh

Design

All units are designed in accordance with BS8110 and BS 5502.

Unit design is typically to Class 3 with a limiting crack width of 0.1mm unless otherwise stated.

It is the client’s responsibility to provide any loading data including impact loadings and fire protection requirements.

Tolerances

Cross-sectional tolerances are within limits set out in clause 6.2.8.3 of BS8110:1997. ACP (Concrete) Ltd acceptable tolerances for standard prestressed units are as follows below:

PROPERTY	ACCEPTABLE TOLERANCES FOR STANDARD PRESTRESSED UNITS
LENGTH	-5mm to +5mm
WIDTH	-5mm to +5mm
THICKNESS	-3mm to +5mm
SQUARENESS	12mm difference between diagonals
SOCKET POSITIONS	-/+ 10mm
LIFTER POSITION	-/+ 100mm

Special cast units will be to tolerances laid down in BS8110 where casting techniques permit.

Manufacture

The large format precast wall panels are manufactured in tilting tables. Units are wet cast into steel moulds.

Mould Finishes

- All faces with the exception of the trowel face will be cast from steel shutter moulds. Surface finish is listed in BS8110 6.2.7.3 and is to conform to Type A.
- Small blemishes caused by entrapped air, excess mould release agent, marks on the casting surface and mould release agent staining can be expected.
- The surface will be free from voids and honeycombing.
- Surface marks from stacking timbers, strand runs and fork truck tine marks can be expected.
- Surface marks of stacking timber, strand run and mould release agent will fade out over time and use.
- Where a blemish free surface is required, masonry paint application is recommended.

Trowel Finishes

- The trowel face of units will comply with a U1 type finish.
- Finish will be uniform and provide full grout cover to aggregates.
- Some trowel marks will be visible.
- Some colour and texture variation may be expected.
- Stacking timber marks and cement blooming may be expected.
- Colour variation, trowel pattern and cement blooming will fade over time and weathering.
- Where uniform colour is required, masonry paint or mineral staining is recommended.

Camber

Units will have little or no camber.

Contact Us

For all Precast Wall Panels enquiries please contact us on 01889 598 660

DISCLAIMER: Please note that any information provided is to be used as a guide only. Any lifting/handling operations should be carried out by trained and competent personnel only. ACP (Concrete) Limited will not be held responsible for any damage or injuries in connection with handling or installation not carried out by ACP (Concrete) Limited.

Sound Attenuation

125mm Wall Thickness	Frequency (Hz)								
	Mean	63	125	250	500	1000	2000	4000	8000
	47	34	38	42	46	50	54	58	62

180mm Wall Thickness	Frequency (Hz)								
	Mean	63	125	250	500	1000	2000	4000	8000
	51	38	42	46	50	54	58	62	66

150mm Wall Thickness	Frequency (Hz)								
	Mean	63	125	250	500	1000	2000	4000	8000
	48	35	39	43	47	51	55	59	63

250mm Wall Thickness	Frequency (Hz)								
	Mean	63	125	250	500	1000	2000	4000	8000
	54	41	45	49	53	57	61	65	69