

PARTITION WALL | SINGLE STUD PARTITION WALL WITH ASYMMETRICAL PLASTERBOARD LAYERS



It is a non-load-bearing partition wall system created by fixing different number of layers of Intreme/ Intreme Fit Ultralight boards to both sides of a single row metal frame.

FEATURES

- Compared to traditional wall systems such as brick, pumice block, aerated concrete, it is easy and quick to install.
- It is lightweight and economical.
- Increases the usable floor area
- Enables high sound and heat insulation.
- It provides high fire resistance with the appropriate type of plasterboard.
- Allows all types of installations to pass through the cavities created within partition walls.

KULLANIM ALANLARI

- Residential Buildings
- Cafes and Restaurants
- Shopping and Business Centers
- Office Buildings
- Hotels
- Hospitals
- Schools and Educational Facilities
- Cinemas, Theaters and Sports Halls
- Industrial Buildings

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■ APPLICATION

- The location of the partition wall to be constructed in accordance with the architectural plan is determined, and the line on which the U -profiles will be fixed is marked on the floor and ceiling.
- U- profiles are cut according to the required length of the partition wall, and C -profiles are cut 10–15 mm shorter than the floor-to-ceiling height.
- Sound insulation tapes are adhered to the bottom surfaces of the U- profiles and to the C- profiles to be fixed to the side walls before installation.
- U- profiles and C -profiles to be fixed to the side walls are fastened using dowels and screws at 60 cm centre-to-centre spacing.
- C- profiles are inserted between the U -profiles in accordance with the specified stud spacing (60 cm or 40 cm centre-to-centre) and may be riveted if required.
- C- profiles must not be screwed to the U- profiles, except for the jamb studs and lintels where door and window openings will be formed.
- Plasterboards are cut 10–15 mm shorter than the floor height using a utility knife. The tip of the utility knife should score the front surface paper and penetrate into the core.
- The plasterboard is snapped with a hand blow at the scored line, and the rear paper is cut with a utility knife to separate the piece.
- The plasterboard is installed by bringing its upper edge as close as possible to the ceiling, leaving a 10–15 mm gap at the floor.
- Fixing begins on one side with full-size plasterboards and continues with full sheets.
- Artificial bevels are created on the cut edges and short edges of the plasterboards using suitable tools before installation.
- Fixing is carried out to the C-profiles using 25 mm drywall screws at a maximum spacing of 30 cm (centre-to-centre).
- The screw length must exceed the profile thickness by at least 10 mm.
- Screws must be fixed 10–15 mm from the plasterboard edge, and the screw heads must be slightly recessed without damaging the surface paper.
- The screw head must be flush with the surface of the plasterboard and must not tear the paper.
- Once the first side is fully boarded, the boards on the back side are installed, ensuring that the joints of the second face do not align with those of the first face.
- Before installing the plasterboards on the back side, all installation works (electrical, mechanical, etc.) must be completed. Insulation materials must be placed tightly between the C-profiles without any gaps.
- When cladding the back side, installation must start with a half plasterboard and continue with full boards. The joints on both sides must not align.
- After the screwing on the back side is completed, the C-profiles corresponding to the mid-span of the plasterboards on the front side are screwed and the fastening is completed.
- The screw heads are then covered with ABS Joint Filler for Plasterboard and any gaps up to 5mm are pre-filled.
- Self-adhesive glass fiber joint tape is adhered to the joints.
- The first coat of ABS Joint Filler for Plasterboard is applied generously over the tape- approximately 10 cm wide, with a spatula, ensuring full contact with the tape, and smoothed with a steel trowel.
- After at least 2 hours, the second coat of ABS Joint Filler for Plasterboard is applied with a steel trowel in a width of approximately 20 cm.

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MATERIAL ANALYSIS

5% wastage was taken into account for a 1 m² partition wall with a height of 2.75 m.
Quantities are approximate and may vary depending on project details.

	Single layer of plasterboard on one side of the metal framework and double layer on the other side (1+2)				Two layers of plasterboard on one side of the metal framework and three layers on the other side (2+3)			
Malzeme Adı	Single Profile		Double Profile		Single Profile		Double Profile	
Centre to centre	60 cm	40 cm*	60 cm*	40 cm*	60 cm*	40 cm*	60 cm*	40 cm*
Intreme/Intreme Fit Ultralight	3,15 m ²				5,25 m ²			
DU Profile	0,80 m				0,80 m			
DC Profile	2,10 m	2,90 m	3,80 m	5,50 m	2,10 m	2,90 m	3,80 m	5,50 m
Sound Insulation Tape	1,30 m							
Dowel-Screw	2,70 pcs							
Drywall Screw 3,5x25	22 pcs	28 pcs	34 pcs	40 pcs	18 pcs	22 pcs	34 pcs	40 pcs
Drywall Screw 3,5x38	14 pcs	18 pcs	18 pcs	24 pcs	28 pcs	66 pcs	36 pcs	48 pcs
Drywall Screw 3,5x55					14 pcs	18 pcs	18 pcs	24 pcs
Joint Tape	3,20 m							
ABS Joint Filler for Plasterboard	0,80 kg							
ABS Saten Finishing Plaster	1 kg/m ² for every 1 mm thickness							
Insulation Material (Optional)	1,05 m ²							
Perforated corner profile corner tape	Depends on the result (floor height)x(number of corners)							

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■ SPECIFICATION

According to the project and detail drawings; Preparation of Wall U profiles (U50-U75-U100) and Wall C profiles (C50-C75-C100) from galvanized steel in accordance with TS EN 14195; Applying sound insulation tape under the C profiles to be attached to the U and side walls; Fixing U profiles to the floor and ceiling using plastic dowels and screws at 60 cm centre to centre spacing; Cutting C profiles; Inserting C profiles between U profiles at 60 cm (or 40 cm) centre to centre spacing; If Intreme/Intreme Fit Ultralights in accordance with TS EN 520 are to be applied to the front side of the partition wall and to the back side of the partition wall with a double layer of plasterboard, the first layer should be applied with 25 mm drywall screws at maximum 75 cm centre to centre spacing, and the second layer should be applied with 38 mm drywall screws at maximum of 75 cm centre to centre spacing.

At 50 cm centre to centre, fixing the third layer to U and C profiles with 55 mm drywall screws at maximum 30 cm centre to centre; On the other side, the first layer is fixed to U and C profiles with 25 mm drywall screws at maximum 75 cm centre to centre, and the second layer is fixed to U and C profiles with 38 mm drywall screws at maximum 30 cm centre to centre; If a double layer of plasterboard will be applied to the front of the partition wall and a single layer to the back, the first layer should be fixed to U and C profiles with 25 mm drywall screws at maximum 75 cm centre to centre, and the second layer should be fixed to U and C profiles with 38 mm screws at a maximum 30 cm centre to centre spacing; Fixing it to U and C profiles with 25 mm drywall screws on the other side, with a maximum of 30 cm centre to centre spacing; Pre-filling of gaps larger than 5 mm with ABS Joint Filler for Plasterboard; Covering the screw heads with joint filler plaster; Applying self-adhesive fiberglass joint tape to plasterboard joints; The unit rate per m² shall include all materials, material waste, labour, loading at site, horizontal and vertical transportation, unloading, contractor's overheads and profit, and all other costs associated with constructing the partition wall, including the application of joint filler over the joint tape.

WARNINGS

- Since C- profiles should not be screwed to U - profiles, the fixing process must be carried out using the rivet shears.
- The vitrified ware hanger for the sanitary ware to be installed must be placed inside the partition wall beforehand.
- Corner profiles or corner tapes should be used to ensure the perpendicularity and smoothness of the partition wall corners and to increase impact resistance.
- When necessary, a support profile should be used in the door and window openings to be left.
- Joint tape and joint filler plaster must be used on all plasterboard joints.

STANDARDS

- TS EN 520 Plasterboards - Definitions, Requirements and Test Methods
- TS EN 13963 Joint Materials - For Plasterboards - Recipes, Requirements and Test Methods
- TS EN 14195 Metal Frame Components Used in Plasterboard Systems
- TS 1475-1 Gypsum plasterboard applications - Part 1: Partition wall application rules
- TS 1475-4 Gypsum plasterboard applications - Part 4: Finishing works application rules