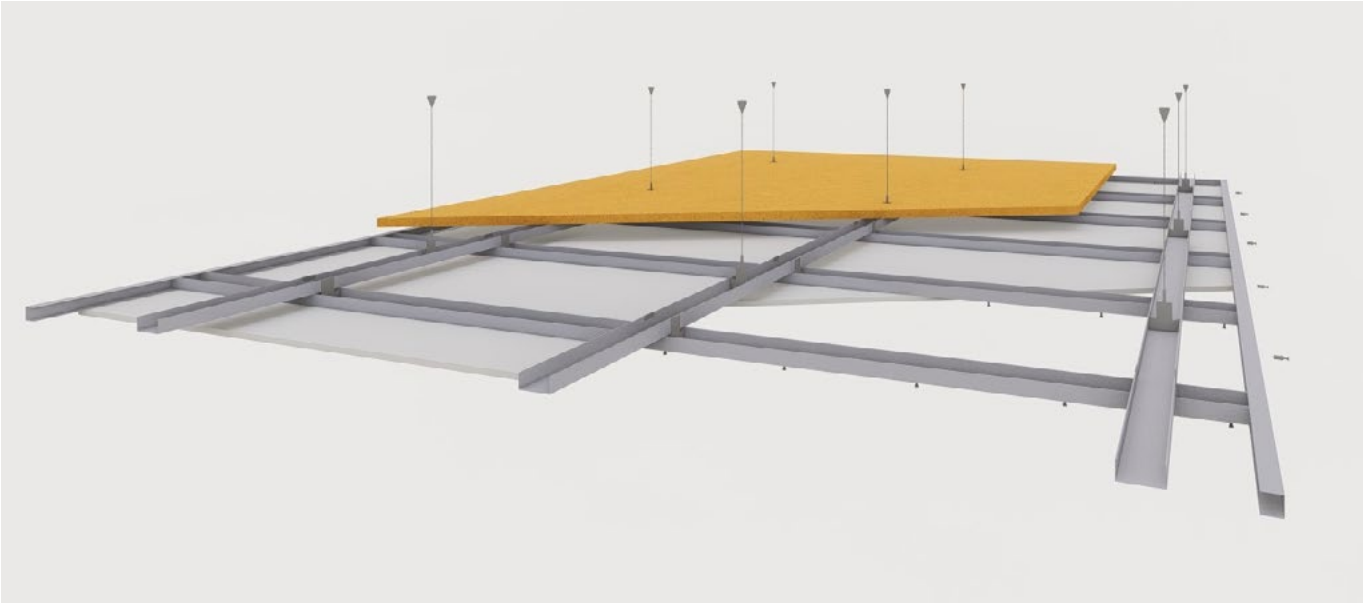
DOUBLE FRAME SUSPENDED CEILING SYSTEM



It is a suspended ceiling system installed by fixing Intreme/Intreme Fit Ultralight plasterboards onto a framework attached to the existing slab with a suspension system.

FEATURES

- It enables the construction of a flexible and lightweight ceiling system compatible with building movements.
- It allows all kinds of installations to be pass through the space between the existing slab and the suspended ceiling and provides easy access when necessary.
- It allows the use of insulation material in the space between the existing slab and the suspended ceiling providing high sound and thermal insulation.
- It provides high fire resistance with the appropriate type of plasterboard selected.

USAGE AREAS

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

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APPLICATION

- The ceiling height of the suspended ceiling shall be determined in accordance with the architectural drawings.
- The fixing line on which TU (Ceiling U) profiles is marked on the wall surfaces.
- TU profiles are prepared and cut according to the dimensions of the suspended ceiling.
- TU profiles are fixed to the side walls using anchors and screws at 60 cm centres.
- The fixing line for the main carriers formed with TC (Ceiling C) profiles is marked on the ceiling surface.
- The distance of the first and last main carrier TC profiles from the wall shall not exceed 15 cm. The spacing between subsequent main carrier TC profiles shall not exceed 110 cm.
- The spacing of the steel anchors fixed on the marked line shall not exceed 90 cm centre -to- centre.
- If the steel anchors conflict with installations within the suspended ceiling void, they shall be relocated or additional steel anchors shall be used.
- The distance of the first steel dowel from the wall shall be 10 cm.
- In hollow block floors, steel dowels shall be fixed to the ribbed beams located between the hollow blocks.
- Hanger rods of appropriate length, determined according to the suspended ceiling height are inserted into steel dowels.
- The hanger rod is inserted through the holes in the hanger spring and aligned according to the lower level of the suspended ceiling. The hanger clips are positioned vertically on the main carrier TC profile.
- Connectors are used at the joints of TC profiles.
- After installing all suspension elements, the main carrier TC profile is placed on the TU profile. TU and TC profiles shall not be screwed together. TC profiles shall not copme into contact with the existing wall.
- If the long side of the Intreme Fit Ultralight plasterboard is perpendicular to the secondary carrier TC profiles, the spacing of the secondary carriers shall be a maximum of 50 cm centre- to- centre. If parallel, the spacing shall be a maximum of 40 cm centre -to- centre.
- Secondary carrier TC profiles are inserted into the TU profile.
- TC and TU profiles shall not be fixed to each other. TC profiles shall not touch the wall.
- At intersections of secondary and main carrier TC profiles, clips shall be installed to engage the tabs of the secondary profiles. The connection shall be secured by bending and fixing with nails on both sides of the main carrier TC profiles.
- Before starting plasterboard installation, all works within the suspended ceiling space (electrical, plumbing, HVAC, ventilation and fire protection systems) shall be completed.
- If insulation materials are to be used, they shall be placed on the TC profiles.
- Plasterboard Installation
- Plasterboards are cut using a utility knife using a straighthedge.
- The blade of the utility knife shall score the front surface of the board and penetrate into the core.
- The plasterboard shall then be snapped by applying pressure along the scored line. After snapping the board is turned over and the backing paper shall be cut.
- Chamfers shall be made on both cut and factory edges using suitable tools at an angle of approximately 45 degrees.

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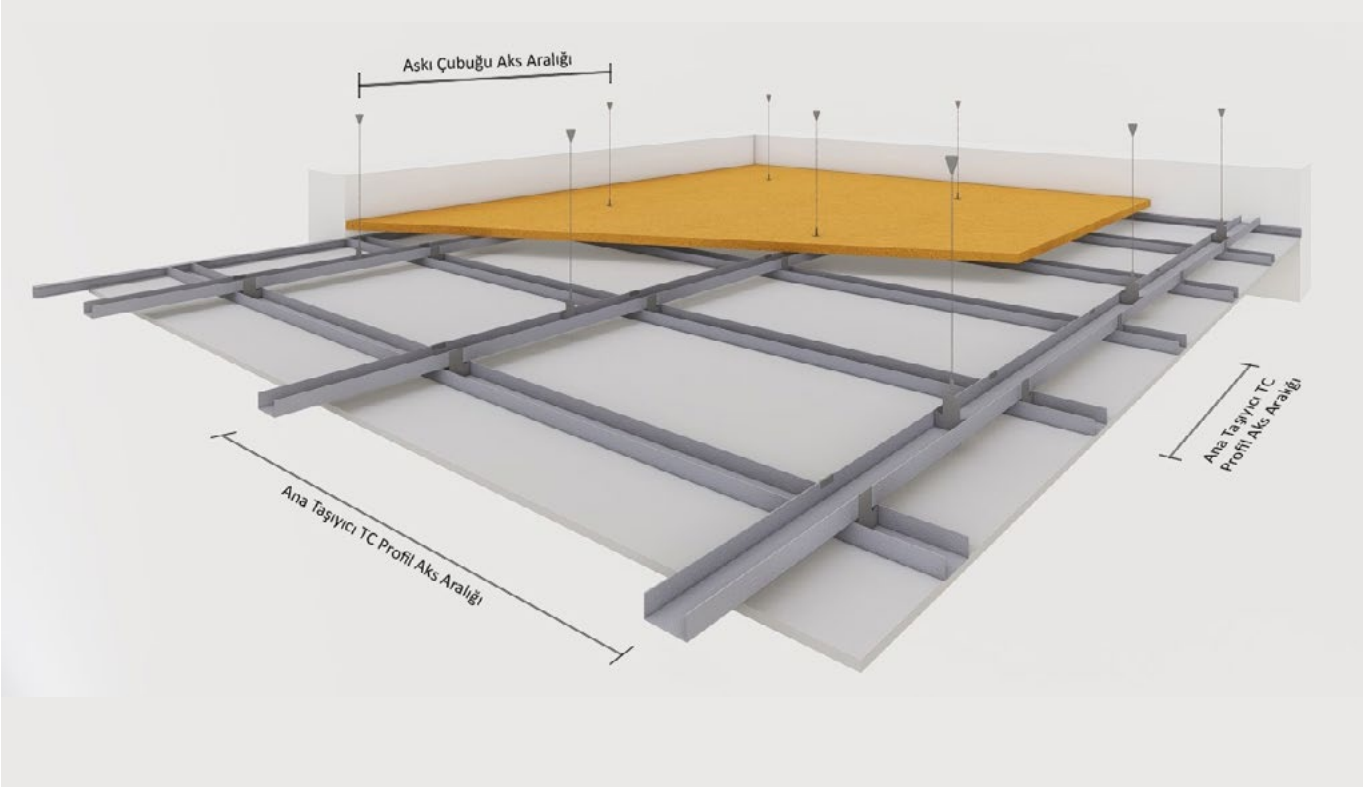
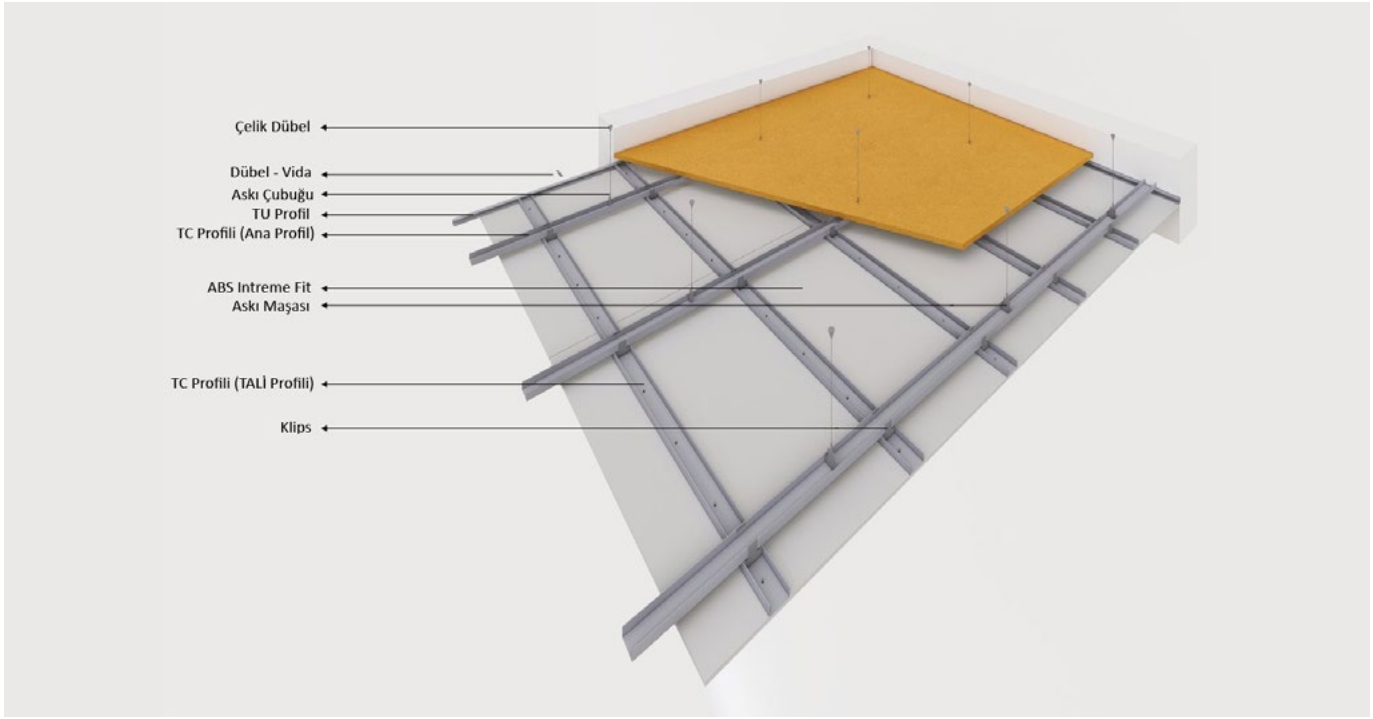
UYGULAMA

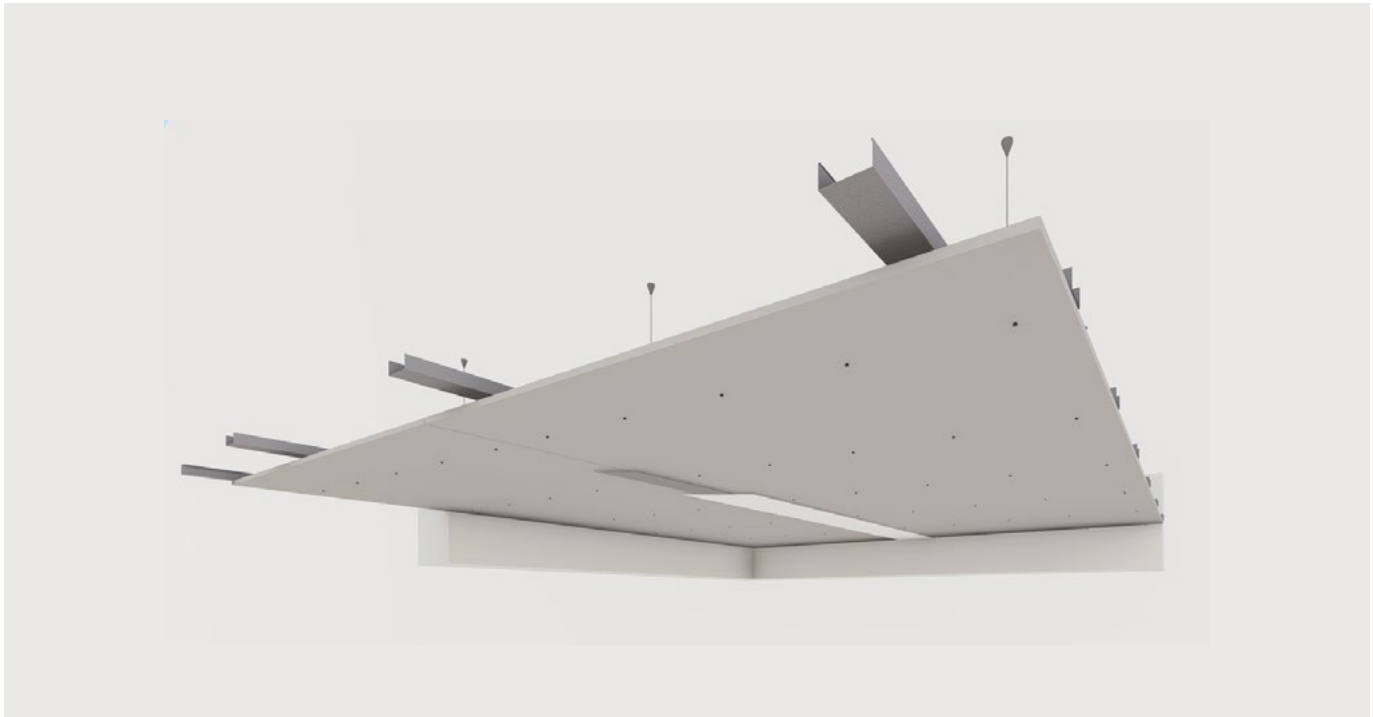
- The plasterboard is positioned against the wall and installation begins.
- Plasterboards shall be centered on the flanges of TC profiles.
- Screws shall penetrate at least 10mm beyond the plasterboard into the supporting profile.
- Screws shall be placed 10-15 mm from the board edges. Screw heads shall not damage the surface and shall remain flush with the board surface.
- Plasterboards shall be fixed tightly at joints, leaving no gaps.
- End joints shall not be aligned, they shall be staggered by at least 40 cm.
- Plasterboards shall be fixed to secondary TC profiles using drywall screws at a maximum spacing of 30 cm centre - to - centre (for single - layer applications).
- Gaps wider than 5 mm are pre-filled with ABS Joint Filler for Plasterboard.
- Any protruding screw heads shall be tightened until flush with the surface and covered with joint filling plaster.
- Self-adhesive fiberglass joint tape is applied to the joints by centering it over them.
- The first layer of ABS Joint Filler for Plasterboard is applied generously over the tape, approximately 10 cm wide using a spatula. It should be in full contact with the joint tape, and then smoothed with a steel trowel.
- After at least 2 hours, the second layer of ABS Joint Filler for Plasterboard is applied with a steel trowel approximately 20 cm wide.



DOUBLE FRAME SUSPENDED CEILING SYSTEM

MATERIAL ANALYSIS





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MATERIAL ANALYSIS

For 1 m² of suspended ceiling, 5% wastage is taken into account.
Quantities are approximate and may vary depending on project details.

Material Name		Single Layer Plasterboard	Double Layer Plasterboard
Intreme/Intreme Fit Ultralight		1,05 m²	2,10 m²
TU Profil		0,90 m	
TC Profil	If the secondary carrier TC profile is perpendicular to the long side of the plasterboard	3,00 m	
	If the secondary carrier TC profile is parallel to the long side of the plasterboard	3,50 m	
Extension piece		1 pcs	
Dowel-Screw		1 pcs	
Steel Dowel		2 pcs	
Hanger Rod		2 pcs	
Hanger Tongs		2 pcs	
Clip		5 pcs	
Drywall Screw 3,5x25		16 pcs	16 pcs
Drywall Screw 3,5x38			16 pcs
Joint Tape		1,80 m	
ABS Joint Filler for Plasterboard		0,40 kg	
ABS Saten Finishing Plaster		1 kg/m² for every 1 mm thickness	
Insulation Material (Optional)		1,05 m²	
Perforated corner profile corner tape		Varies Depending on Ceiling Detail	

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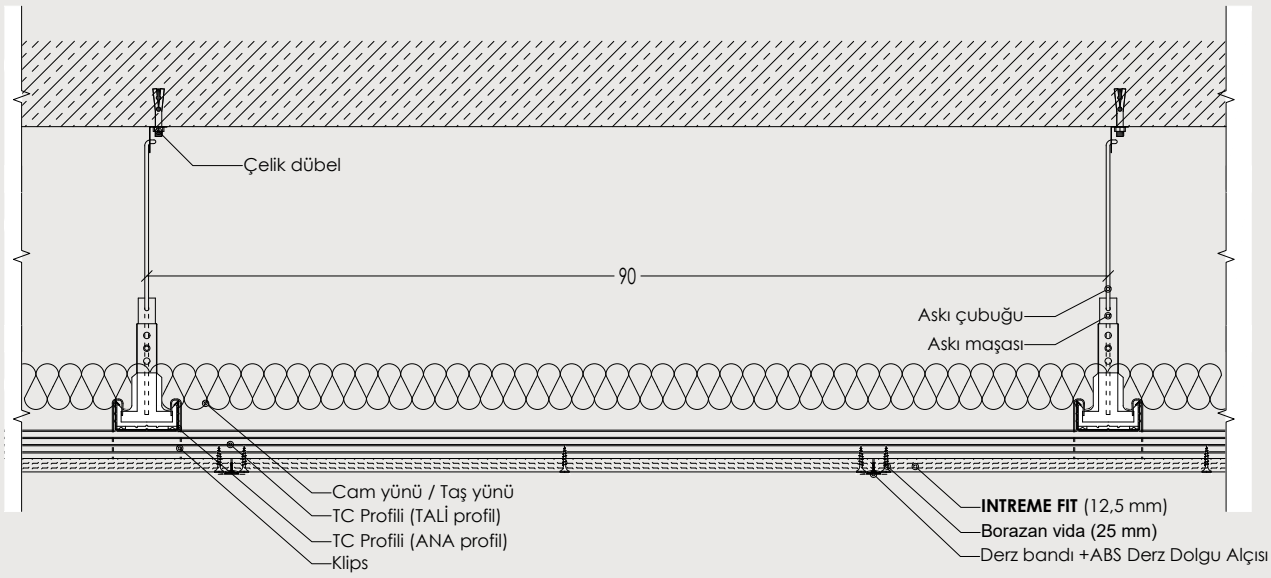
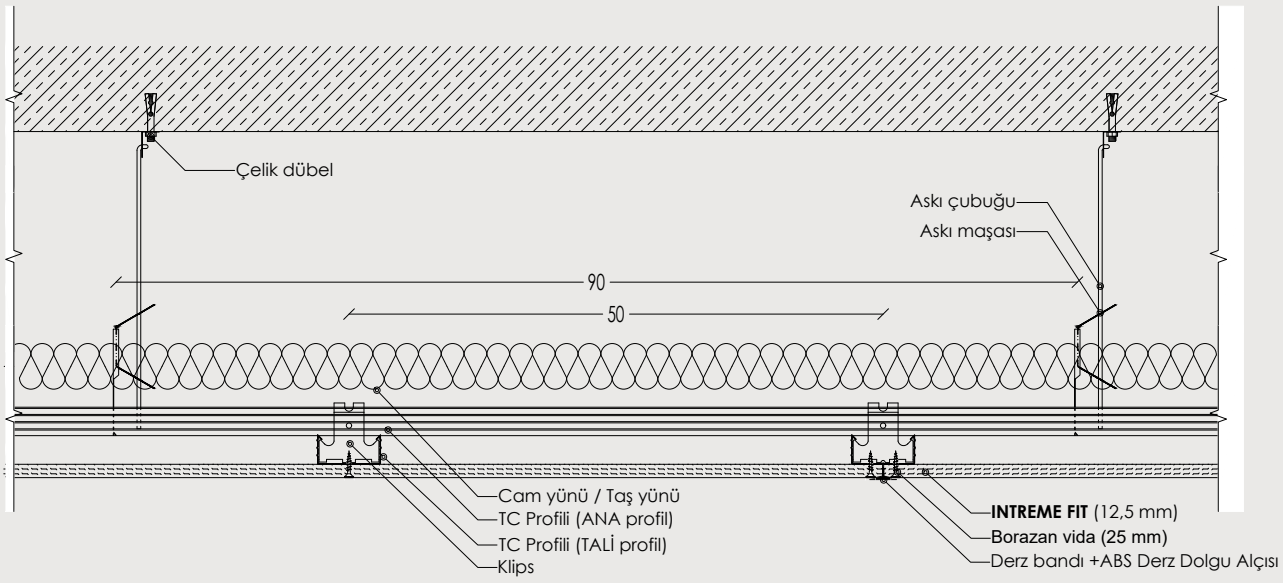
SPECIFICATION





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SPECIFICATION

Carry out the works in accordance with the approved project drawings and detail specifications;
Ceiling U-profiles (TU) and Ceiling C-profiles (TC) shall be prepared from galvanized steel in accordance with TS EN 14195; TU profiles shall be fixed to the existing walls using plastic plugs and screws at 60 cm centres
The first main carrier line shall be marked on the ceiling at a distance of 10 cm from the existing wall;
Lines for the installation of the main carriers shall be marked with a maximum spacing of 110 cm centres;
Steel anchors shall be installed along the marked lines at intervals not exceeding 90 cm; Hanger rods shall be fixed to the steel anchors; Suspension clips (hangers) shall be attached to the hanger rods;
TC profiles shall be cut and leveled by fixing them to the suspension clips, thereby forming the main carrier system
Secondary TC profiles shall be installed perpendicular to the main carrier using clips at 50 cm centres (maximum 60 cm); Profile connectors shall be used at TC profile joints; Intreme/Intreme Fit Ultralight boards shall be fixed to TU and TC profiles (in accordance with TS EN 520) using 25 mm drywall screws at maximum 30 cm centres
Gaps larger than 5 mm shall be pre-filled using ABS Plasterboard Joint Filler Plaster; Screw heads shall be covered with joint filler plaster; Self-adhesive fiberglass joint tape shall be applied 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

- Corner profiles or corner tapes shall be used to ensure proper alignment and smooth finishing at ceiling corners.
- Joint tape and joint filler plaster must be applied at all plasterboard joints.
- To prevent deflection of plasterboards:
- If the long edges of the boards are parallel to the secondary carriers,
- The spacing of secondary carriers shall not be 60 cm.
- Steel anchors must be used to fix the suspended ceiling to the existing structural slab. Plastic plugs must not be used due to risk of failure.
- Suspension hangers must be installed vertically and directly connected to the main carrier TC profiles. Improper installation reduces load-bearing capacity.
- Any additional loads shall be supported by the existing structural system.
- Ek yükler mutlaka mevcut döşemeye taşıttırılmalıdır.

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 1475-3 Gypsum plasterboard applications - Part 3: Suspended ceiling application rules
- TS 1475-4 Gypsum plasterboard applications - Part 4: Finishing works application rules