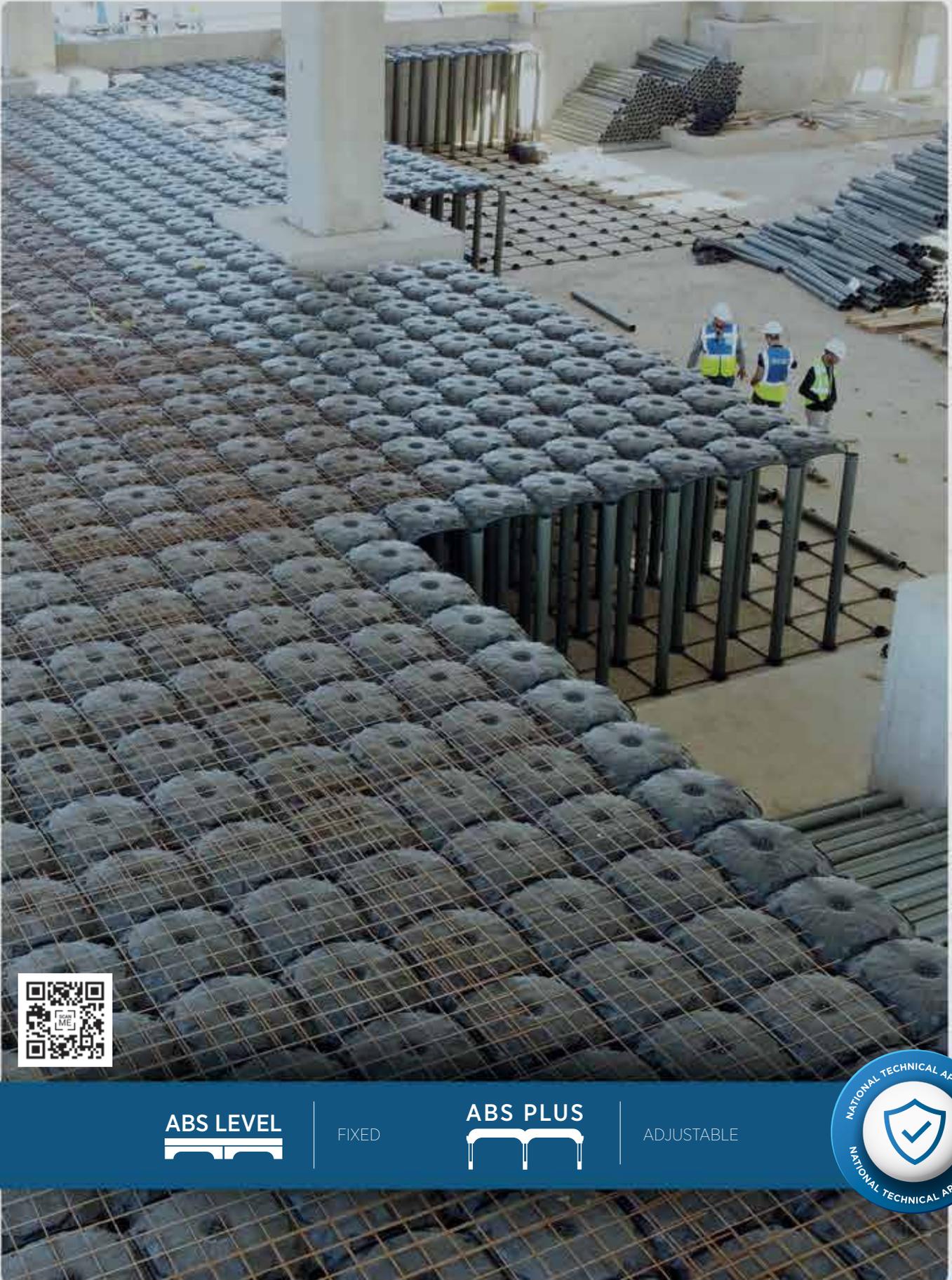


# abs Disposable Formworks



DISPOSABLE FORMWORKS FOR LIGHTWEIGHT FILLINGS



**ABS LEVEL**



FIXED

**ABS PLUS**



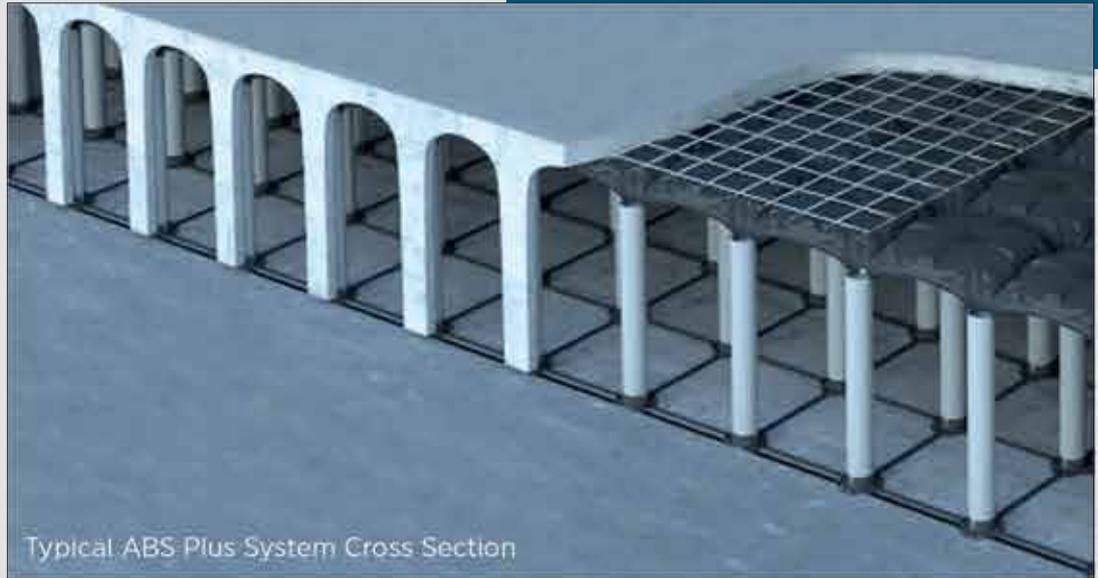
ADJUSTABLE



**LIGHTWEIGHT, SIMPLE, FAST**



# WHAT ARE ABS DISPOSABLE FORMWORKS?



## ABS Disposable Formworks help to construct reinforced concrete raised floors

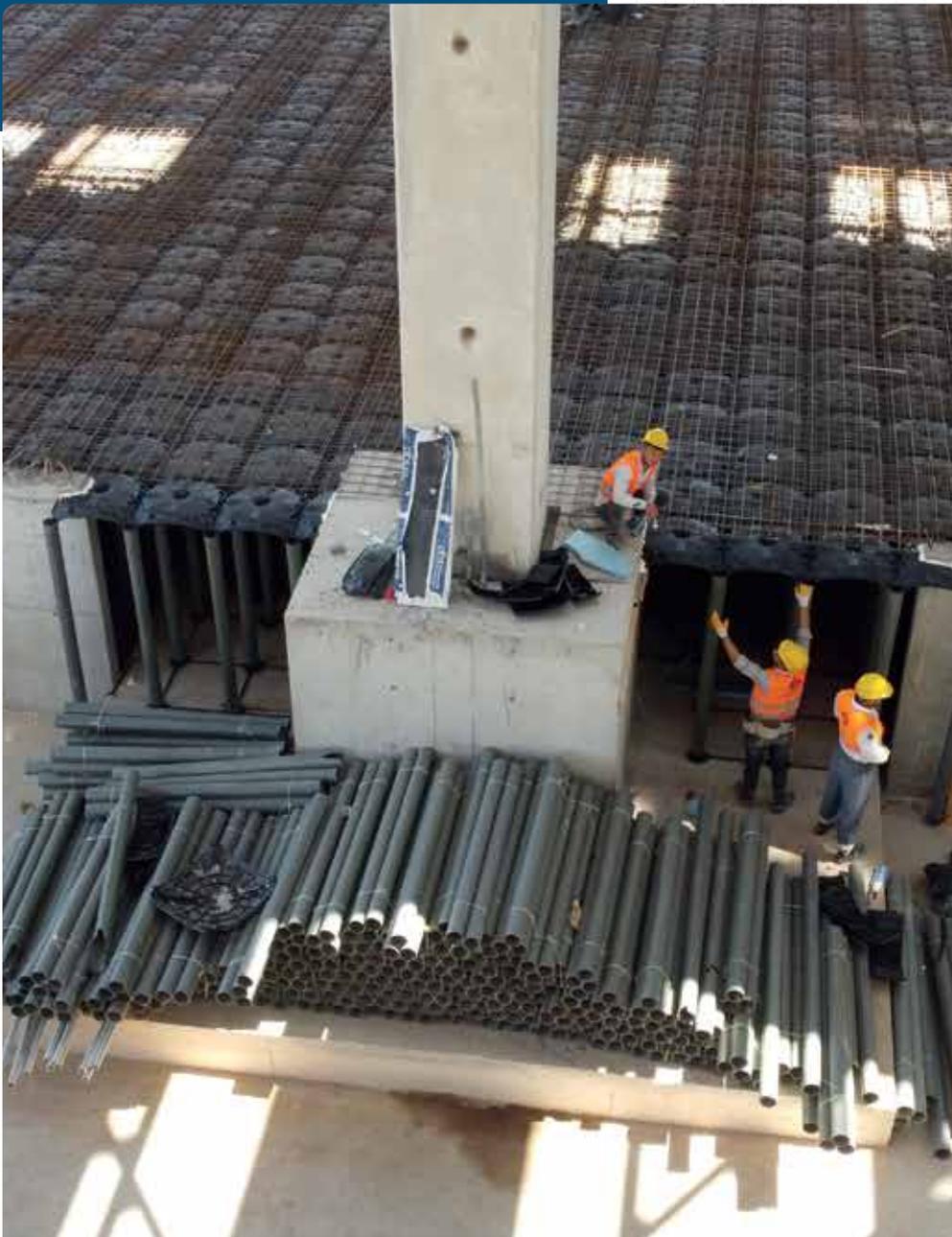
ABS Disposable Formworks are concrete shaping structures made of recycled plastic that are used only once. They are also called void formers, permanent formworks or single-use formworks. They create reinforced concrete raised floors up to 300 cm, thus providing a light, fast, easy and economical filling in any structure. Reinforced concrete raised floors are constructed faster and easier, are lighter weight and are more economical than conventional filling applications.



ABS Plus  
Adjustable Height



ABS Level  
Fixed Height



## ABS PLUS | ADJUSTABLE HEIGHT DISPOSABLE FORMWORKS FOR LIGHTWEIGHT FILLINGS (20 - 300 cm)

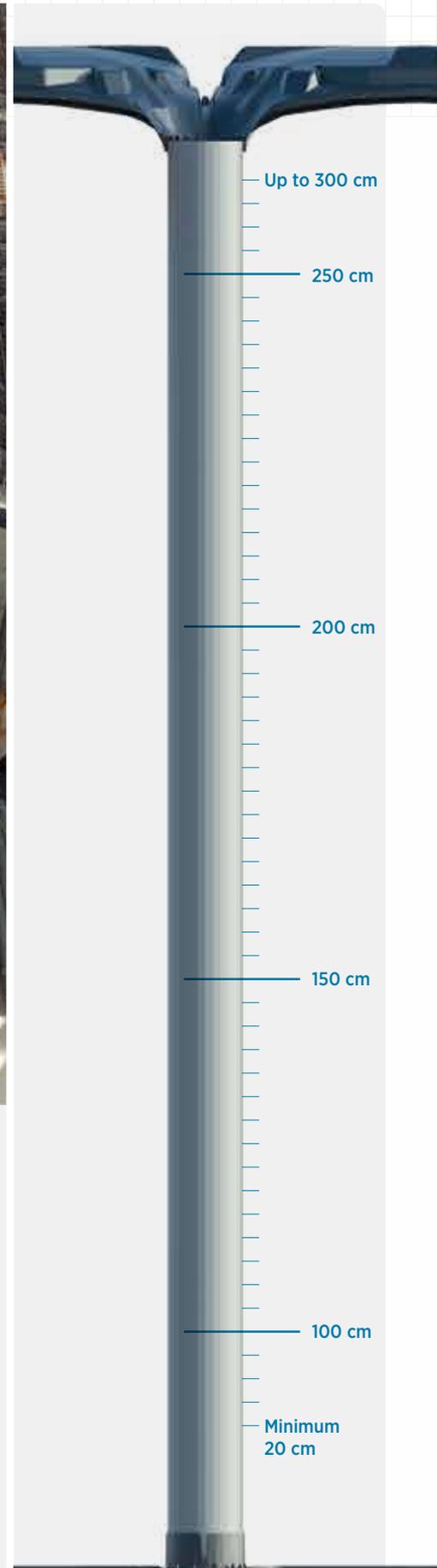
ABS Plus is an adjustable-height disposable concrete formwork system made of recycled plastic. The system is also called 'void formers', 'permanent formwork' or 'single-use formwork'. It creates reinforced concrete raised floors up to 300 cm, thus providing a light, fast, easy and economical filling in any structure.

To accommodate project-specific heights, the legs are cut to specification at factory before delivery. Alternatively, standard-length legs can be cut on-site by the customer fitting exact heights.

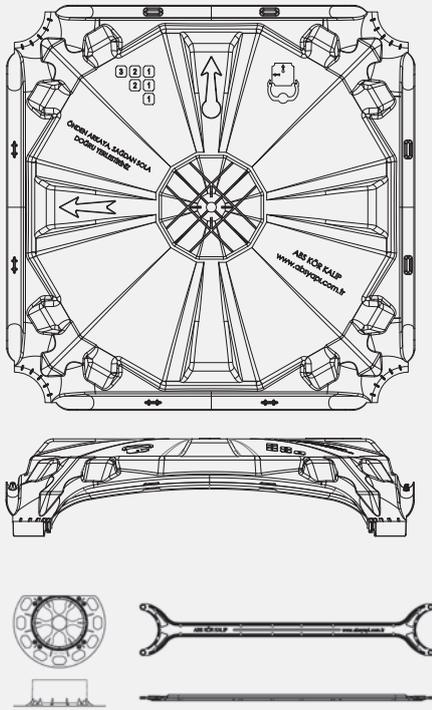
Unlike similar systems, the ABS Plus system consists of 2 legs per m<sup>2</sup>, which, in addition to the advantages listed below, provides additional ease of application and significant cost savings on concrete and steel. ABS Plus system can be used for any sort of lightweight filling application. Uses include sunken slab fillings, landscape fillings to create a hard surface, inverted beam fillings, fillings between foundation footings, carpark ramps, pool decks, elevator/staircase hallway fillings and crawlspace construction.



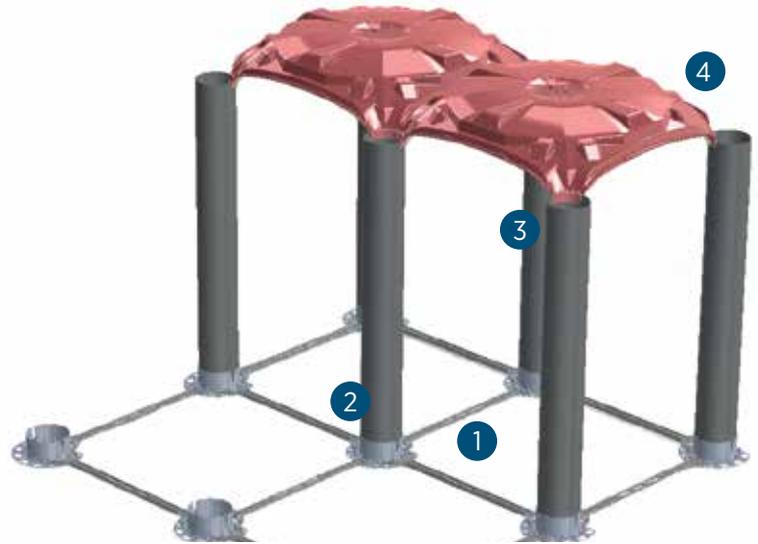
For more information



# ABS Plus (20 cm - 300 cm)



- 1 ABS Plus - Spacer (min. 2 max. 4 pcs per m<sup>2</sup>, depending on the project)
- 2 ABS Plus - Base (2 pcs = 1 m<sup>2</sup>, Ø125 mm, H 2,5 cm)
- 3 ABS Plus - Leg (2 pcs = 1 m<sup>2</sup>, cut to the heights required by the project, Ø125 mm)
- 4 ABS Plus - H15 Dome (2 pcs = 1 m<sup>2</sup>)



## Dimensions

Dome size	710 x 710 mm, 2 domes per m <sup>2</sup>
Dome height	150 mm, net height w/o leg connections
Net arch clearance	width 590 mm, height 59 mm
Base height	25 mm, 2 bases per m <sup>2</sup>
Leg diameter	Ø 125 mm, 2 legs per m <sup>2</sup>
Leg height	variable heights, depending on requirement
Number of spacers needed	max 4/m <sup>2</sup> lower than 50 cm heights may not require use of spacers, however all spacers are need for heights for more than 120 cm

## Pallet dimensions

Pallet dimensions (dome)	75 x 150 x 255
Pieces per pallet (dome)	170 pcs
Area covered per pallet (dome)	85 m <sup>2</sup>
Pallet weight (dome)	350 kg

Material: dome, base and spacer recycled PP, leg recycled PVC  
 Application speed: 20 m<sup>2</sup>/man-hour on a rectangular area

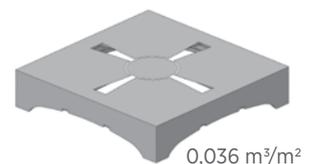
## Formulas

d = height in m of the topping concrete calculated separately depending on the service loads needed  
 h = total height of the ABS Plus system in m before concrete casting

Total concrete consumption in m<sup>3</sup>/m<sup>2</sup> = d + 0,03554 + [0,02454 x (h - 0,15)]

Leg height in m = h - 0,15 m - 0,025 m

## Dome Concrete Consumption



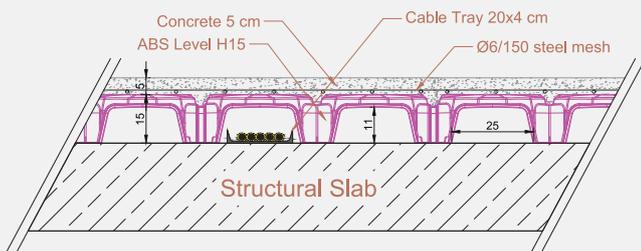


**ABS LEVEL | FIXED-HEIGHT DISPOSABLE FORMWORKS FOR LIGHTWEIGHT FILLINGS (5, 10, 15 cm)**

The 'Level' series of ABS Disposable Formworks offers fixed heights of 5, 10 and 15 cm to create reinforced concrete raised floors in commercial or industrial structures quickly, easily and extremely economically. The formworks are made of recycled plastic and are specifically designed to enable cable trays and and/or plumbing pipes to pass through them.

The products can be used alternatively to modular raised floor applications with metal pedestals. Moreover, commercial areas that are conventionally filled with 8-10 cm of dry screed to obtain a smooth concrete finish can be constructed as a reinforced concrete raised floor using ABS Level disposable formworks and junction boxes, which allows electrical and mechanical installations to pass through them. The space that normally would have been lost, can now be added to the usage area of the building.

- 1) ABS Level - H5 (2 pcs = 1 m<sup>2</sup>)
- 2) ABS Level - H10 (2 pcs = 1 m<sup>2</sup>)
- 3) ABS Level - H15 (2 pcs = 1 m<sup>2</sup>)

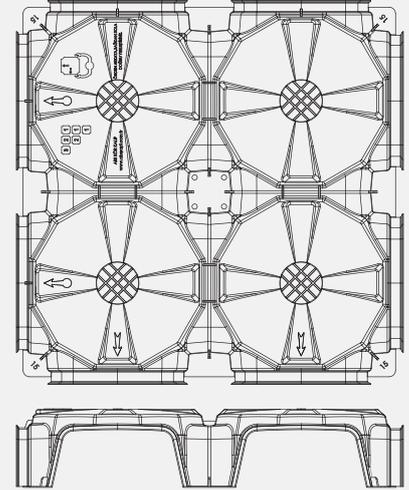
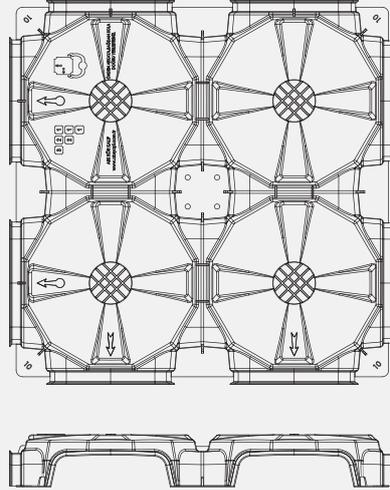
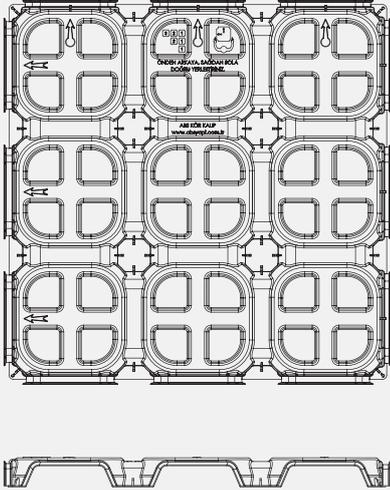


For more information

**ABS Level - H5**

**ABS Level - H10**

**ABS Level - H15**



**Dimensions**

710 x 710 x 50 mm

2 formworks per m<sup>2</sup>

1,78 kg/pcs

710 x 710 x 100 mm

2 formworks per m<sup>2</sup>

1,96 kg/pcs

710 x 710 x 150 mm

2 formworks per m<sup>2</sup>

2,16 kg/pcs

**Net arch clearance**

160 mm width

40 mm height

230 mm width

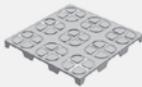
60 mm height

250 mm width

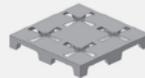
110 mm height

**Concrete consumption w/o topping concrete**

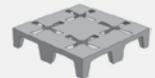
0,010 m<sup>3</sup>/m<sup>2</sup>



0,022 m<sup>3</sup>/m<sup>2</sup>



0,025 m<sup>3</sup>/m<sup>2</sup>



**Pallet dimensions**

75 x 150 x 260 cm

75 x 150 x 260 cm

75 x 150 x 260 cm

**Pieces per pallet and area covered**

300 pcs and 150 m<sup>2</sup>

250 pcs and 125 m<sup>2</sup>

250 pcs and 125 m<sup>2</sup>

**Pallet weight**

545 kg

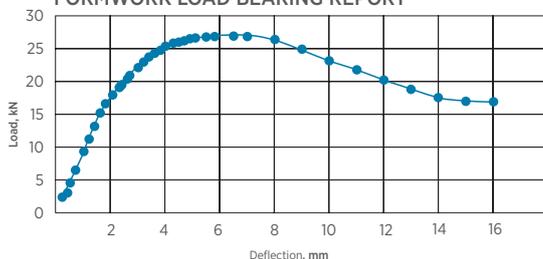
500 kg

550 kg

**Material: recycled PP**

**Application speed: 100 m<sup>2</sup>/man-hour on a rectangular area**

**FORMWORK LOAD BEARING REPORT**



Sample No	Sample Type	Sample Size (mm)	Plate Size (mm)	Maximum Load	
				kN	kN/m <sup>2</sup>
1	ABS Level H5	710x710x50	450x450	26.950	133.1

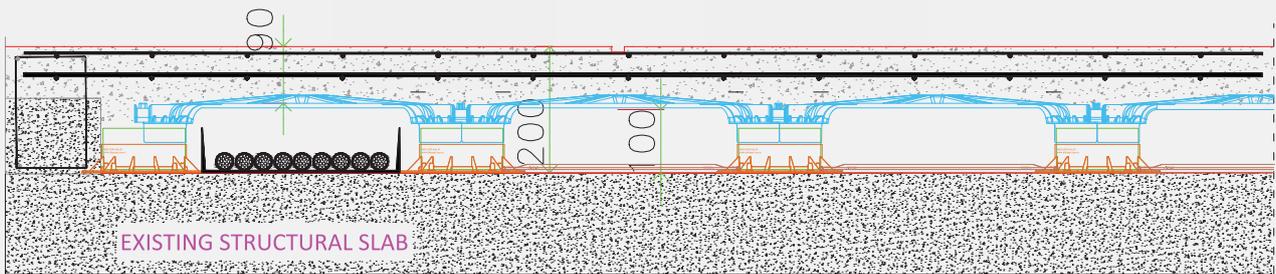
- Please contact us for more detailed information.





## ABS PLUS S | VARIABLE-HEIGHT DISPOSABLE FORMWORK SYSTEM FOR MAXIMUM CLEARANCE

ABS Plus S (S for special, smart, and slim) offers maximum possible net arch clearance among all the existing disposable formwork designs. Thanks to its unique umbrella cage shape it has an almost flat ceiling allowing MEP (mechanical, electrical, and plumbing) installations to pass through uninterrupted, at a maximum available leg opening of 350 mm. Moreover, the formwork system can be installed at a minimum height of 75 mm leaving a net clearance of 50 mm under the arch. This registered umbrella cage design also works as a concrete spacer on its top, allowing less topping concrete for a stronger structure.



SAMPLE CROSS SECTION

# ACCESORIES



## ABS PLUS | DOME SIDE SHUTTER

This unique design helps to cover the opening between uncut ABS Plus domes and perimeter wall completely even if the wall surface is uneven. The design covers the arch of the dome with minimum concrete consumption while keeping the leg entry completely open for concrete casting.



**THE LIGHTEST SOLUTION**

Regardless of the height, only the weight of the topping concrete is added to the structure.



**EASE OF LOGISTICS**

Unmatched logistical advantage; products are designed to be stackable, nesting in each other. At a sample height of 100 cm, 1 truck of disposable formwork equivalents 50 trucks of alternative filling material!



**HIGH LOAD BEARING**

Through the creation of hundreds of columns, arches and domes, the reinforced concrete raised floor has a very high load bearing capacity.



**REDUCED CONSTRUCTION TIME**

Construction activities on upper floors can proceed without having to wait for the filling application on lower floors, as the filling application can be done anytime, saving very valuable construction time.



**VOID SPACE CREATION**

The void space that gets created can be used for installations (electrical, mechanical, etc.) to pass through; columns have a net opening of 59 cm.



**FAST AND EASY**

The installation does not require any skilled labor; it can be done very fast and easy.



**RAMP CONSTRUCTION**

The legs can be cut at any size needed to create a ramp.



**CONTINUOUS CONCRETE SURFACE**

Any sort of covering application can be applied on the concrete surface very easily.



**HEAT AND SOUND INSULATION**

The void space that gets created provides heat and sound insulation.



**RADON AND DAMP BARRIER**

If used above foundations and properly ventilated, it is the most economical and safest way to removing radon gas, humidity and dampness from living quarters.



**SEPARATOR WALL CONSTRUCTION**

Separator walls can be installed directly on the newly created concrete surface.



**ENVIRONMENTAL VALUE**

Because the disposable formworks are made of recycled PP, they help to gain considerable LEED certificate points.

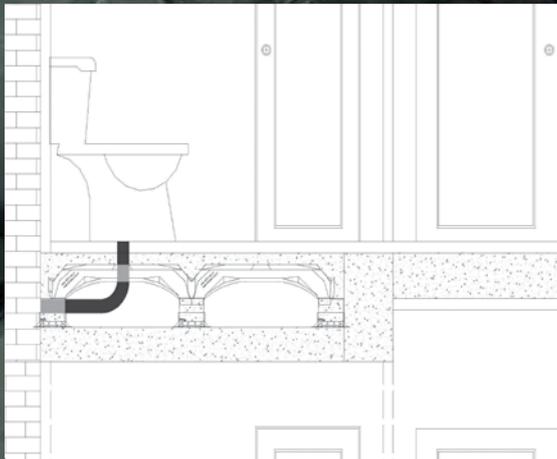
ABS Disposable Formwork System for lightweighth fillings is the first and only domestic product group in its field with National Technical Approval and G marking.



# SUNKEN SLAB FILLING



SCAN FOR MORE



In commercial buildings in particular, sunken slabs may be required on ground floors or podium areas. By using ABS Disposable Formworks, these areas can be raised to the height specifications of architectural plans. Constructing reinforced concrete raised floors by using ABS Disposable Formworks is one of the lightest and most practical solutions to leveling differences.

In multi-use projects, different parts of a building on a common floor may not be level. Such differences usually occur on ground floors, podium areas, courtyards or roof gardens. The lower "sunken slab" therefore must be raised to the height of the more dominant slab. Constructing a lightweight reinforced concrete raised floor using ABS Disposable Formworks is fast and economical. ABS Disposable Formworks also offer an extra benefit: by allowing MEP (mechanical, electrical, plumbing) installations to pass through the void space, they add what would normally be lost space to the functional area of the structure.

# SUNKEN SLAB FILLING REFERENCE APPLICATION

[disposableformwork.com](http://disposableformwork.com)



## Residential Tower

📍 Far East

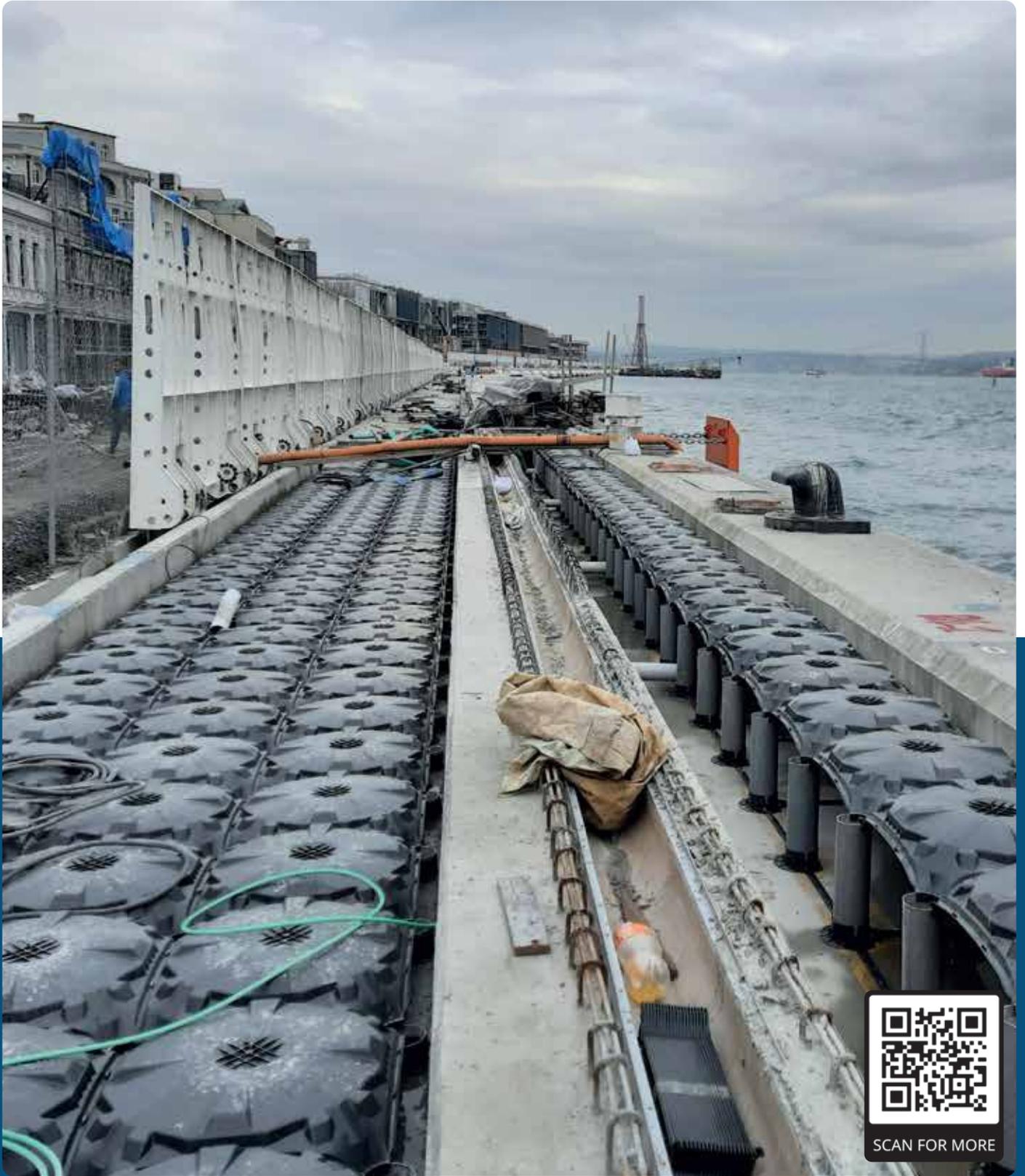
ABS Plus H35 cm



## Gebze Bilsem School

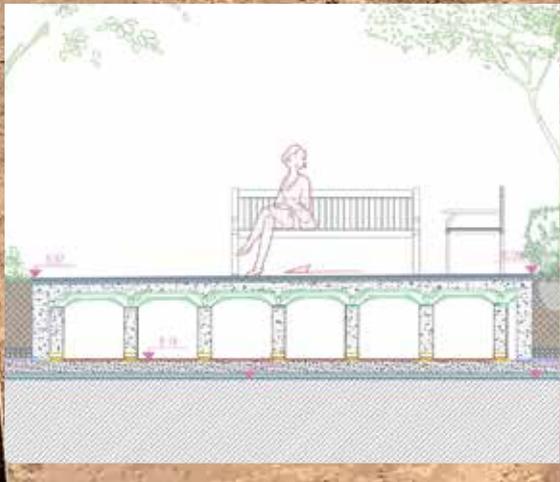
📍 Gebze, Izmit

ABS Plus H40 cm



SCAN FOR MORE

# LANDSCAPE FILLING



ABS Disposable Formworks are preferred not only because they are the lightest filling application. Thanks to the fact that they do not interrupt the drainage slope, they are also the preferred choice for constructing hard surfaces in landscape projects, and they completely eliminate the risk of long-term cracks.

With increasing congestion in today's cities, the need for green spaces increases as well. One way to address this need is to utilize rooftops, podiums and terraces for gardens. This idea is a very simple one, but it presents tough engineering challenges—including total building weight and drainage. ABS Disposable Formworks are useful for constructing practical and robust hard surfaces in such elevated gardens. The formworks can be laid on top of (or next to) inclined drainage sheets without blocking the flow of drain water. Landscape architects can therefore plan freely, without being concerned about hard-surface walkways blocking the drainage direction.



# Galataport İstanbul

📍 Istanbul, Turkey

ABS Plus H30 & 60 cm

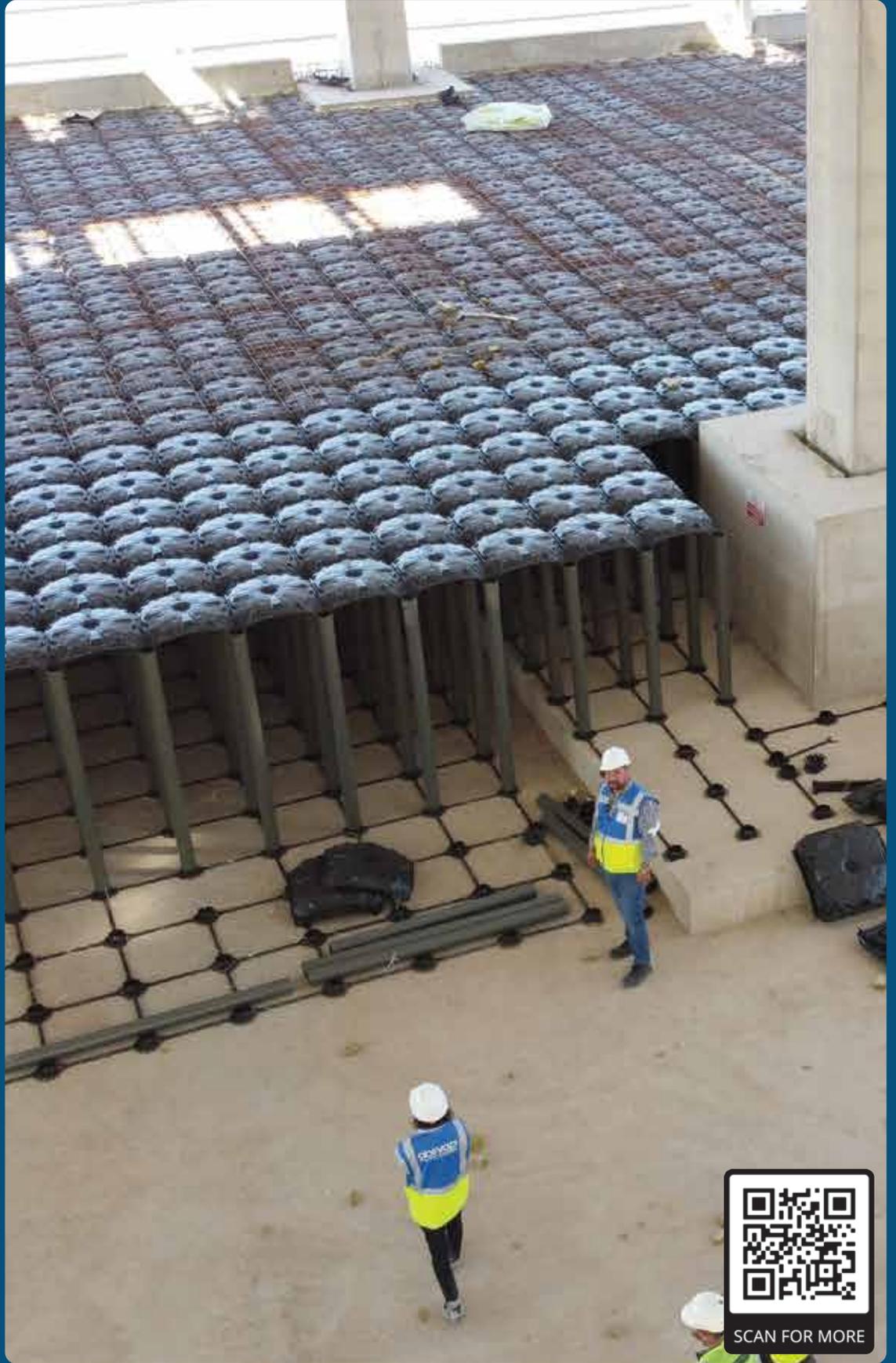


## Gaziantep Iconova

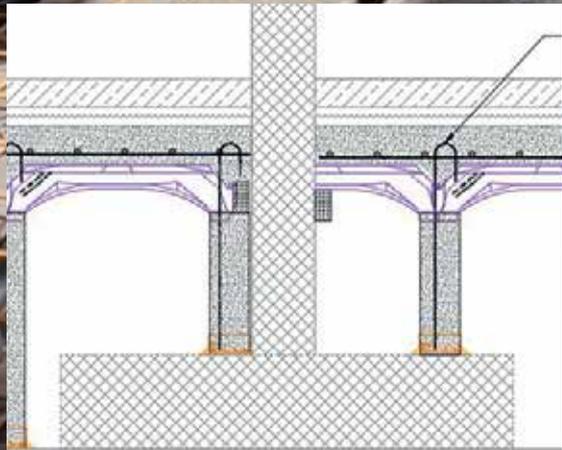
📍 Gaziantep, Turkey

ABS Plus H50 cm

# FILLING BETWEEN FOUNDATION FOOTINGS



SCAN FOR MORE



In order to reduce the thickness of a raft foundation without risking the integrity of the entire structure, column/wall footings are required above the raft foundation surface. A footing distributes the load on top of the column/wall evenly on the raft foundation, which also avoids puncturing the column/wall into the raft foundation. Overall, this is an effective and economical method of creating foundations.

However, a footing creates a serious handicap; the space between the footings needs to be filled and paved to create an even surface so that it can be added to the useful area of the building. These areas are traditionally filled with a gravel-sand mix and compacted every 20-30 cm. The compacted area has to be covered with a plastic sheet to prevent concrete leakages, and 20 cm of concrete with double mesh steel reinforcement has to be poured and paved.

# FILLING BETWEEN FOUNDATION FOOTINGS REFERENCE APPLICATION

[disposableformwork.com](https://disposableformwork.com)

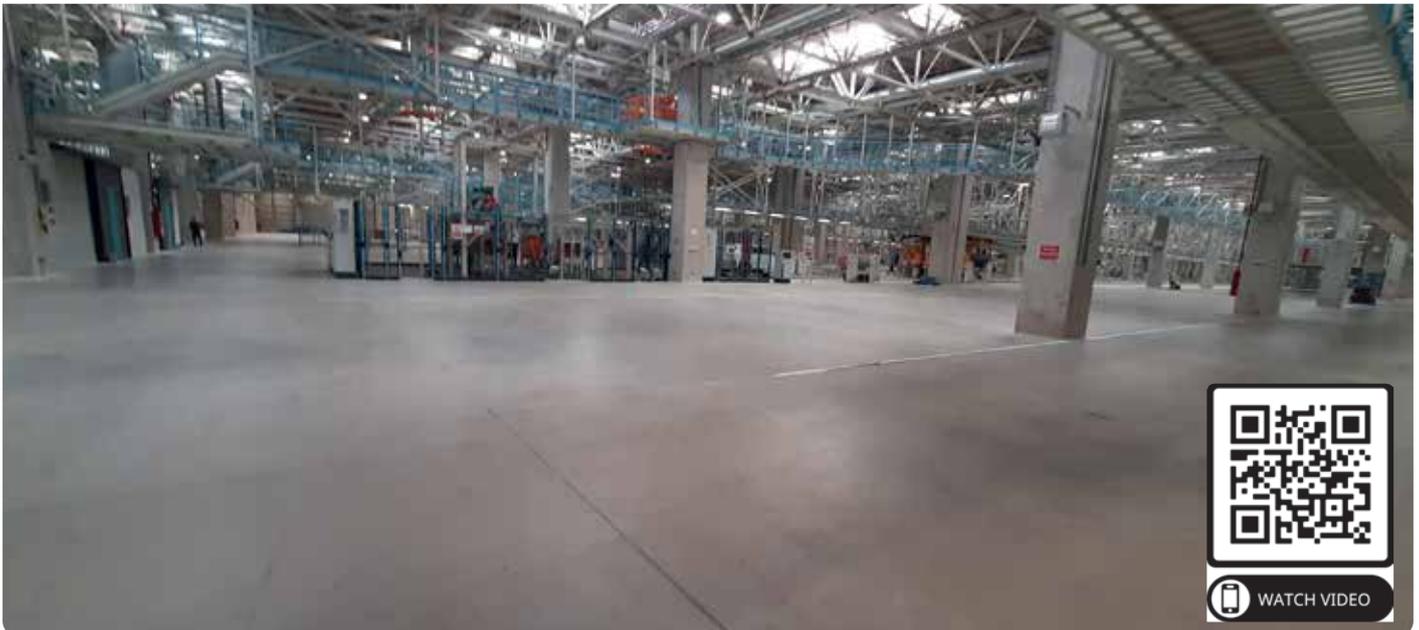


## TOGG Gemlik Campus

📍 Bursa, Turkey

ABS Plus H250 cm

# FILLING BETWEEN FOUNDATION FOOTINGS REFERENCE APPLICATION



# FILLING BETWEEN FOUNDATION FOOTINGS REFERENCE APPLICATION

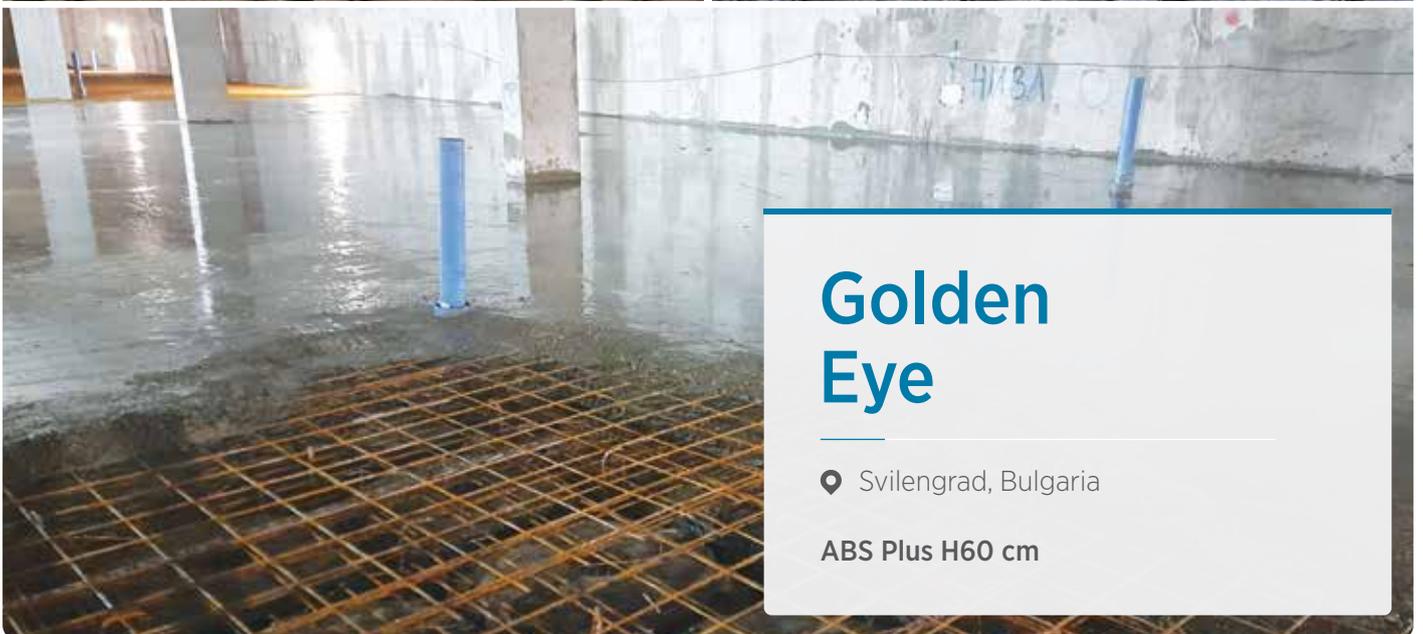
[disposableformwork.com](http://disposableformwork.com)



## Abdi İpekçi Sports Complex

İstanbul, Turkey

ABS Plus H110 cm

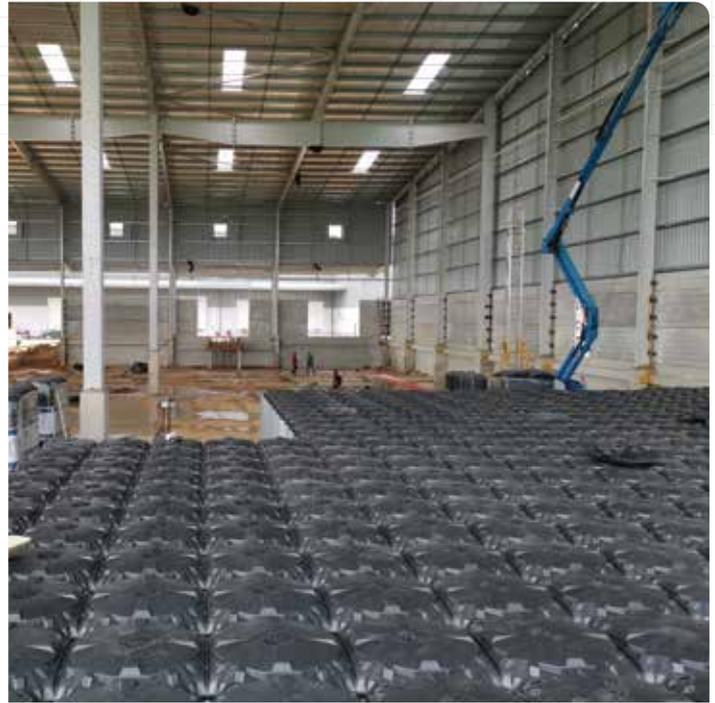


## Golden Eye

📍 Svilengrad, Bulgaria

ABS Plus H60 cm

# FILLING BETWEEN FOUNDATION FOOTINGS REFERENCE APPLICATIONS



## NDR Warehouse

📍 Chennai, India

ABS Plus H235 cm



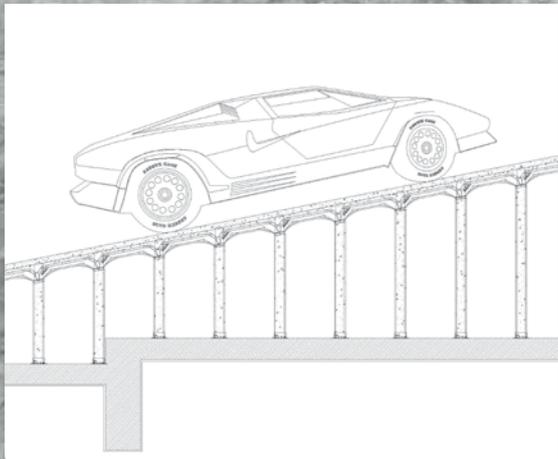
## 3Sun Gigafactory

📍 Catania, Italy

ABS Plus H196 cm

# CAR PARK RAMP CONSTRUCTION

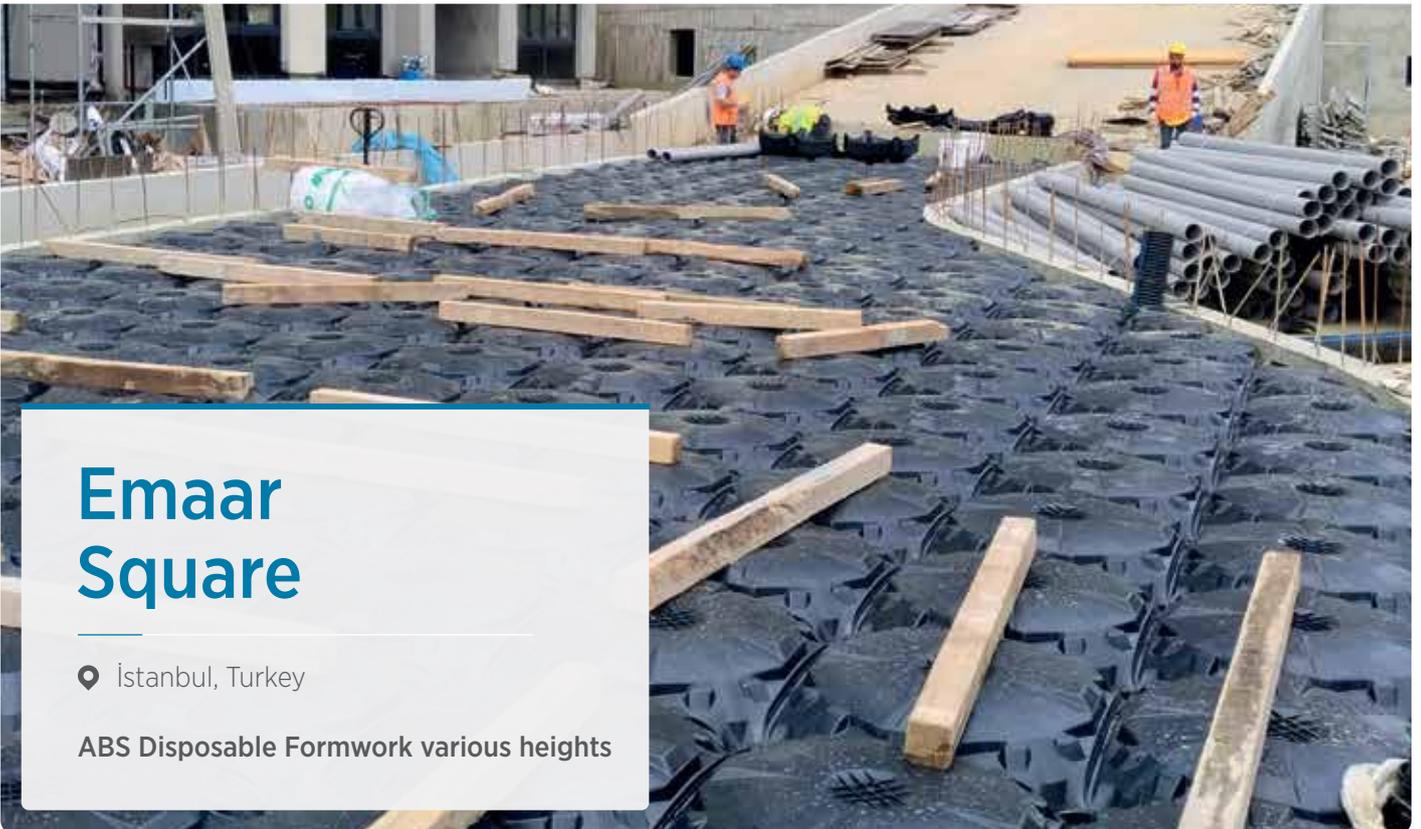
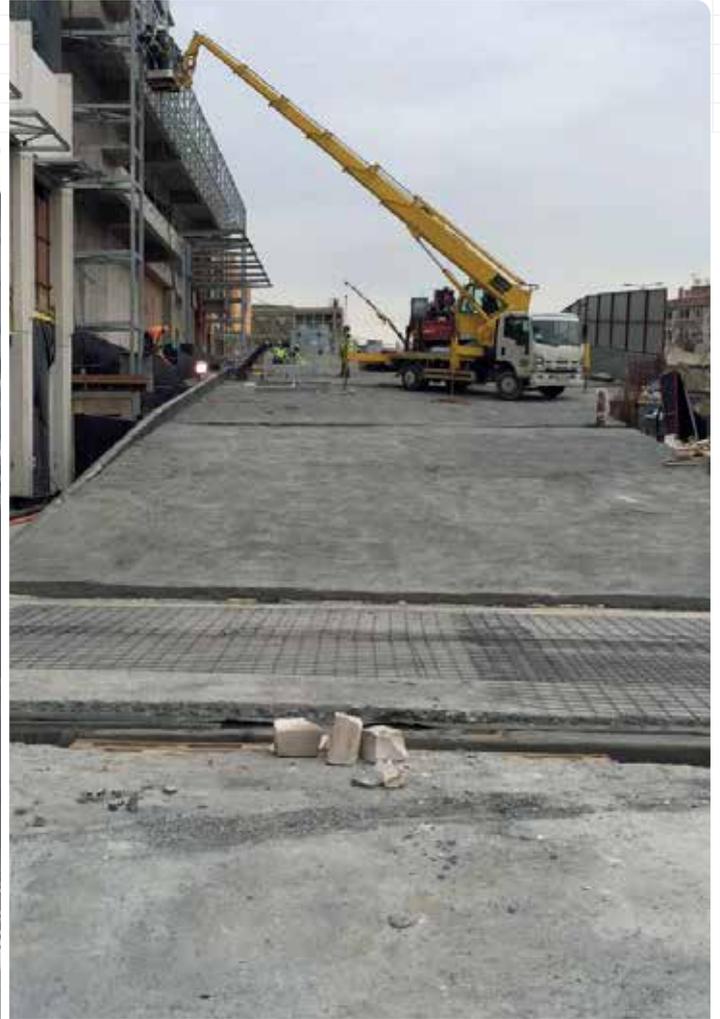




Car park ramps that are constructed using ABS Disposable Formworks are lighter and more economical than conventional shear wall and beam designs. Conventional car park ramp designs require shear walls and beams to carry the weight of vehicle traffic on an inclined surface. ABS Disposable Formworks allow construction of a flat slab where the ramp is going to be (that is, a surface just like the main slab structure). Later, ABS Disposable Formworks can be used to construct the incline (from 0 meters up to 3 meters), adding to the structure only the thickness of the slope – and a little more for the ABS columns. It is a faster, lighter and more economical solution than conventional methods.

# CAR PARK RAMP CONSTRUCTION REFERENCE APPLICATION

[disposableformwork.com](http://disposableformwork.com)



## Emaar Square

📍 Istanbul, Turkey

ABS Disposable Formwork various heights



## Sabah Al-Salem University

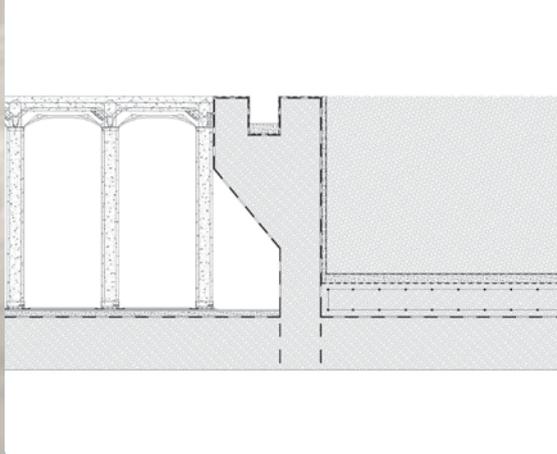
📍 Kuwait City, Kuwait

ABS Plus various heights



SCAN FOR MORE

# POOL DECK SLAB FILLING



Constructing a swimming pool on a flat reinforced concrete foundation or a floor slab is much easier and more economical than other designs. Once the sheer walls of the pool are erected, the pool deck can be constructed using ABS Disposable Formworks. Because the inside of the filling is empty, it can be used for MEP (mechanical, electrical, plumbing) installation passages as well.

# POOL DECK SLAB FILLING REFERENCE APPLICATION

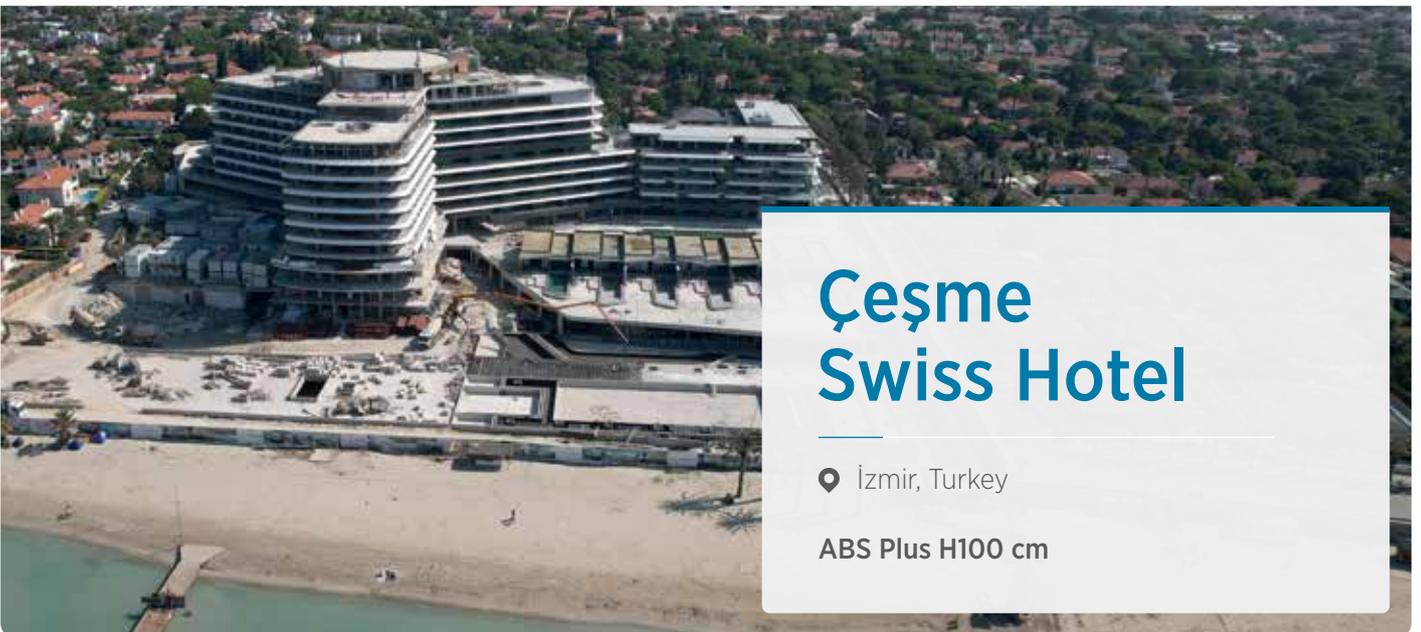
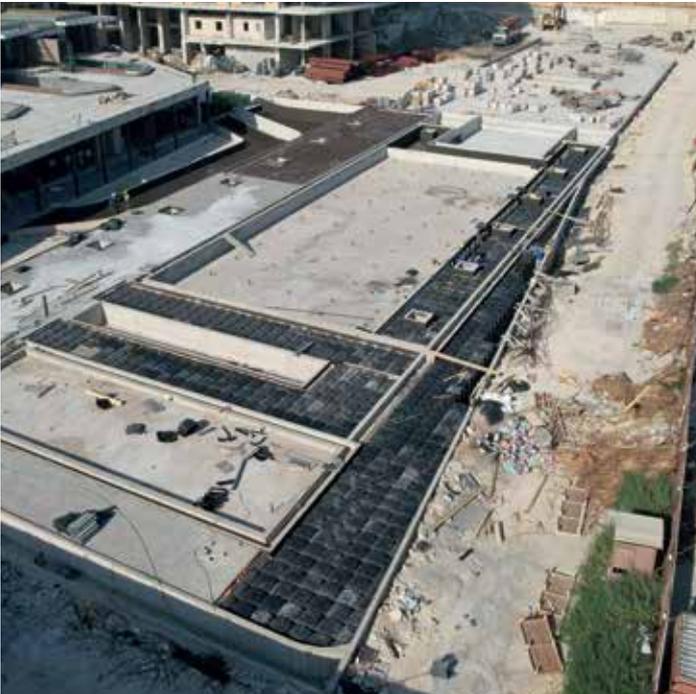
[disposableformwork.com](http://disposableformwork.com)



## Rumeli Villas

📍 Istanbul, Turkey

ABS Plus H180 cm



## Çeşme Swiss Hotel

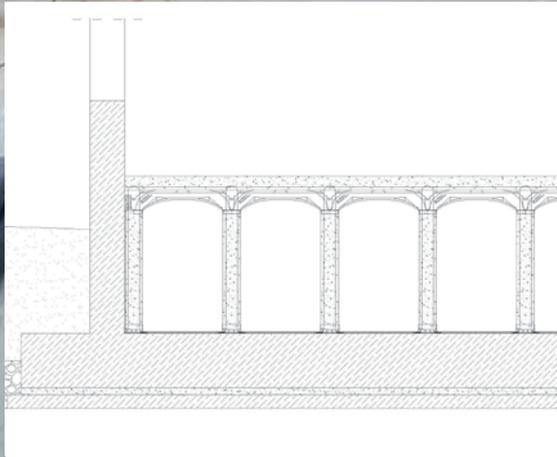
📍 İzmir, Turkey

ABS Plus H100 cm

# CRAWL SPACE CONSTRUCTION



SCAN FOR MORE



ABS Disposable Formworks can be used to raise the ground floor of a structure above the natural ground level, allowing fast and easy construction of a crawl space. Most single- or two-floor houses are elevated 40 to 50 cm above the ground. This construction tradition has numerous benefits: prevention of flooding, prevention of radon and vapor intrusion, humidity removal, and the affordance of MEP (mechanical, electrical and plumbing) installation passages. The elevation is typically done using brick or concrete pillars connected to each other by wood beams. ABS Disposable Formworks offer a much more rigid and sturdy way of creating a crawl space while, at the same time, offering all their numerous benefits. The ABS plastic disposable formworks can be installed in line with the layout of the house and can be filled and covered later with wet concrete, constructing a "reinforced concrete raised floor" with an exceptionally high load-bearing capacity that is also highly resistant to decay.



## Manavgat Villas

📍 Antalya, Turkey

ABS Plus H75 cm

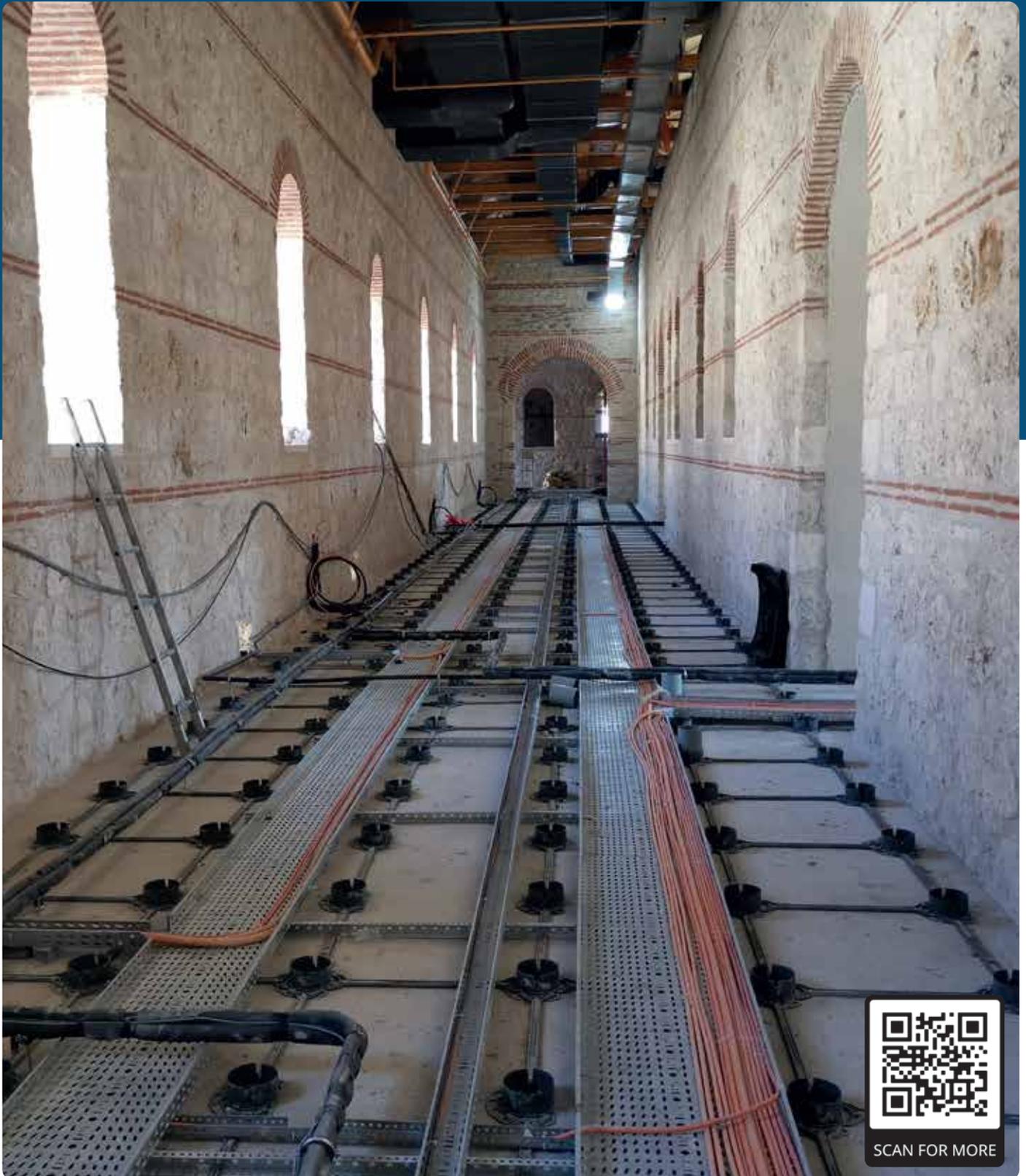


## Limak Villas

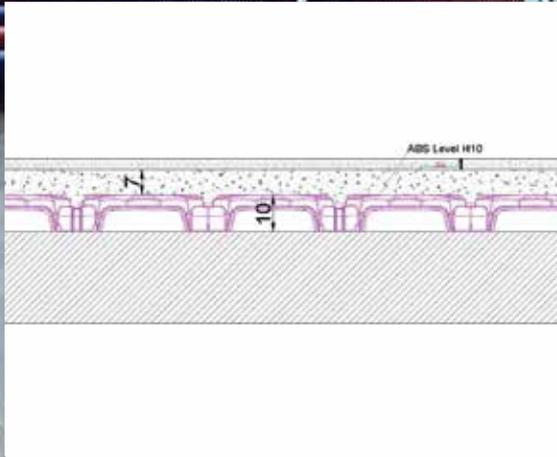
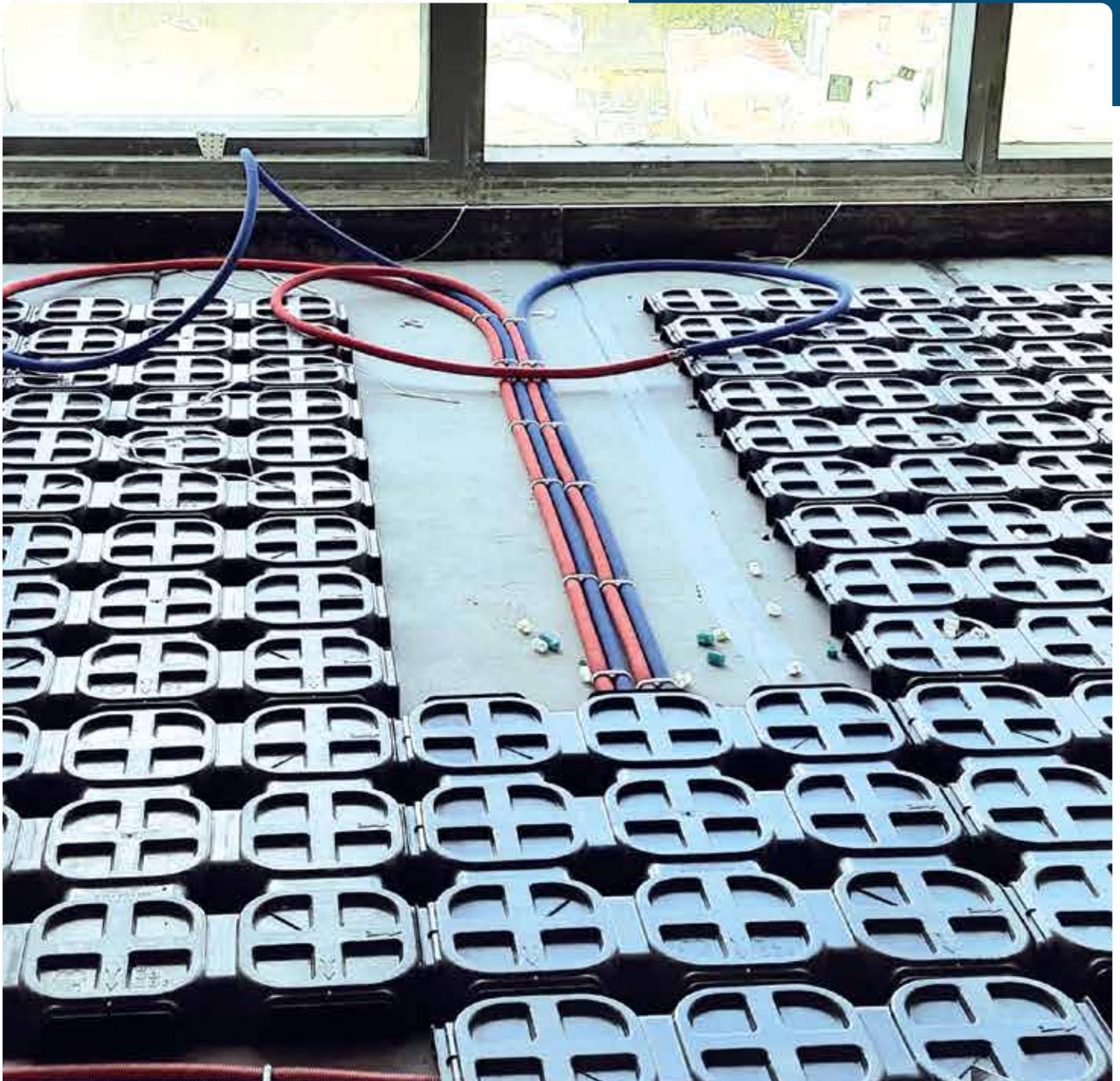
📍 İstanbul, Turkey

ABS Plus H35 cm

# CONCRETE RAISED FLOORS



SCAN FOR MORE



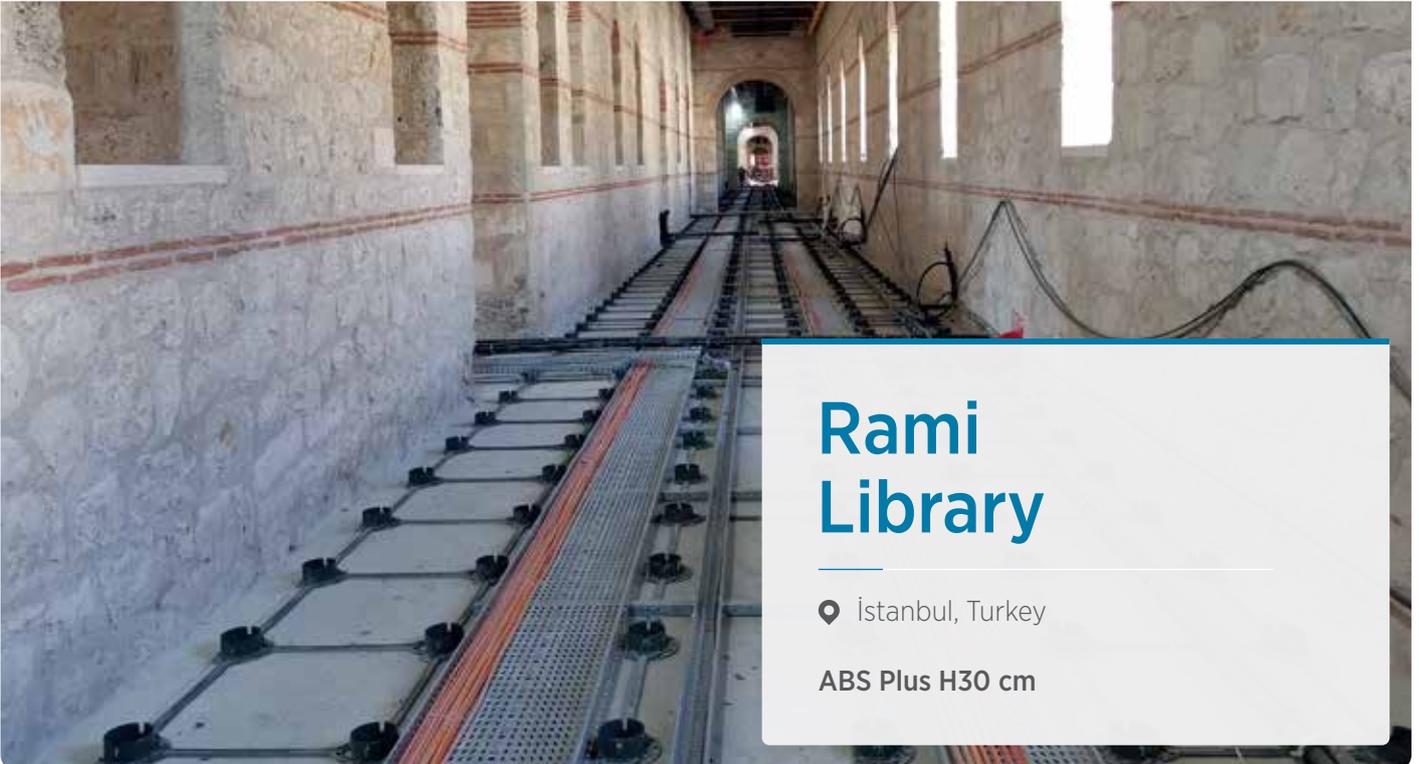
Reinforced concrete floors constructed using ABS Disposable Formworks are 95% empty, so the void space can be used for passing MEP (electrical, mechanical, plumbing) installations in a manner similar to that used for modular raised floors on steel pedestals. This system can be used as an alternative to all modular raised floor applications with metal pedestals. In addition, using ABS Level Disposable Formworks and junction boxes means that each commercial area to be filled with 8-10 cm of dry screed can be converted into a reinforced concrete raised floor. Volume that would normally have been lost can now be used for electrical and mechanical installations, thus increasing the total usage area of the building.



## The Address Hotel Emaar Square

📍 Istanbul, Turkey

ABS Level H5 cm



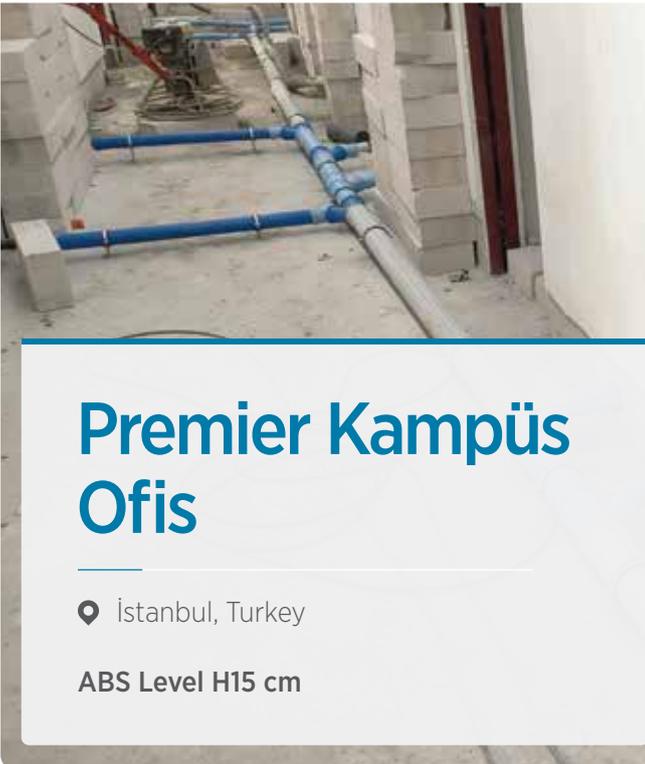
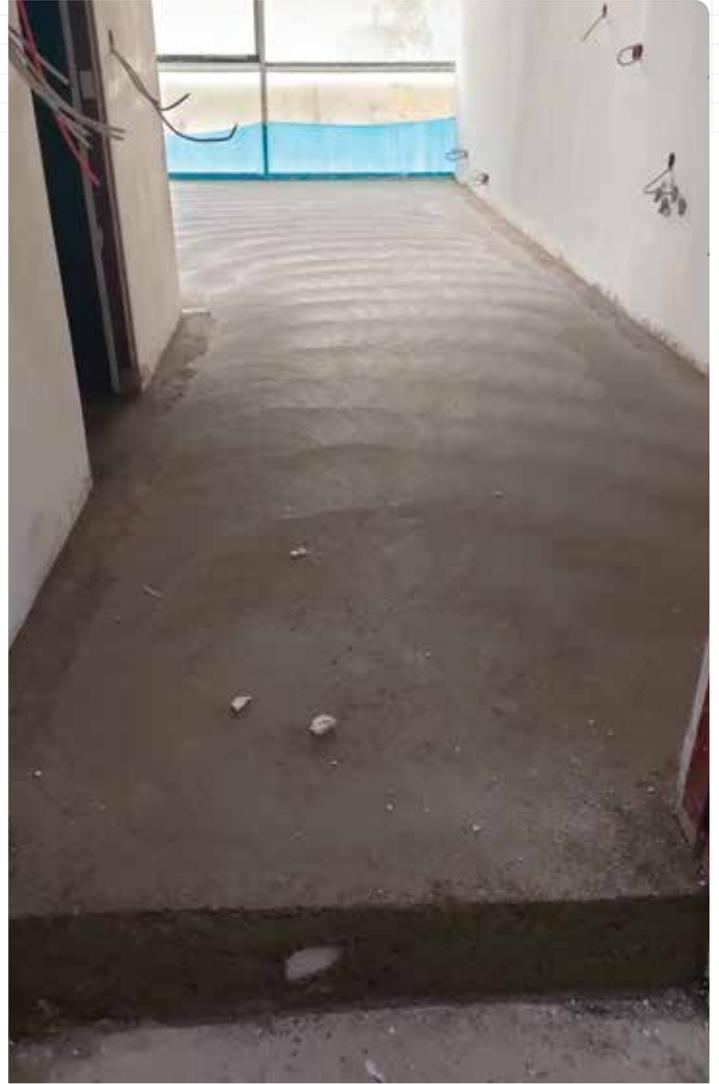
## Rami Library

📍 İstanbul, Turkey

ABS Plus H30 cm

# CONCRETE RAISED FLOORS REFERENCE APPLICATION

[disposableformwork.com](http://disposableformwork.com)

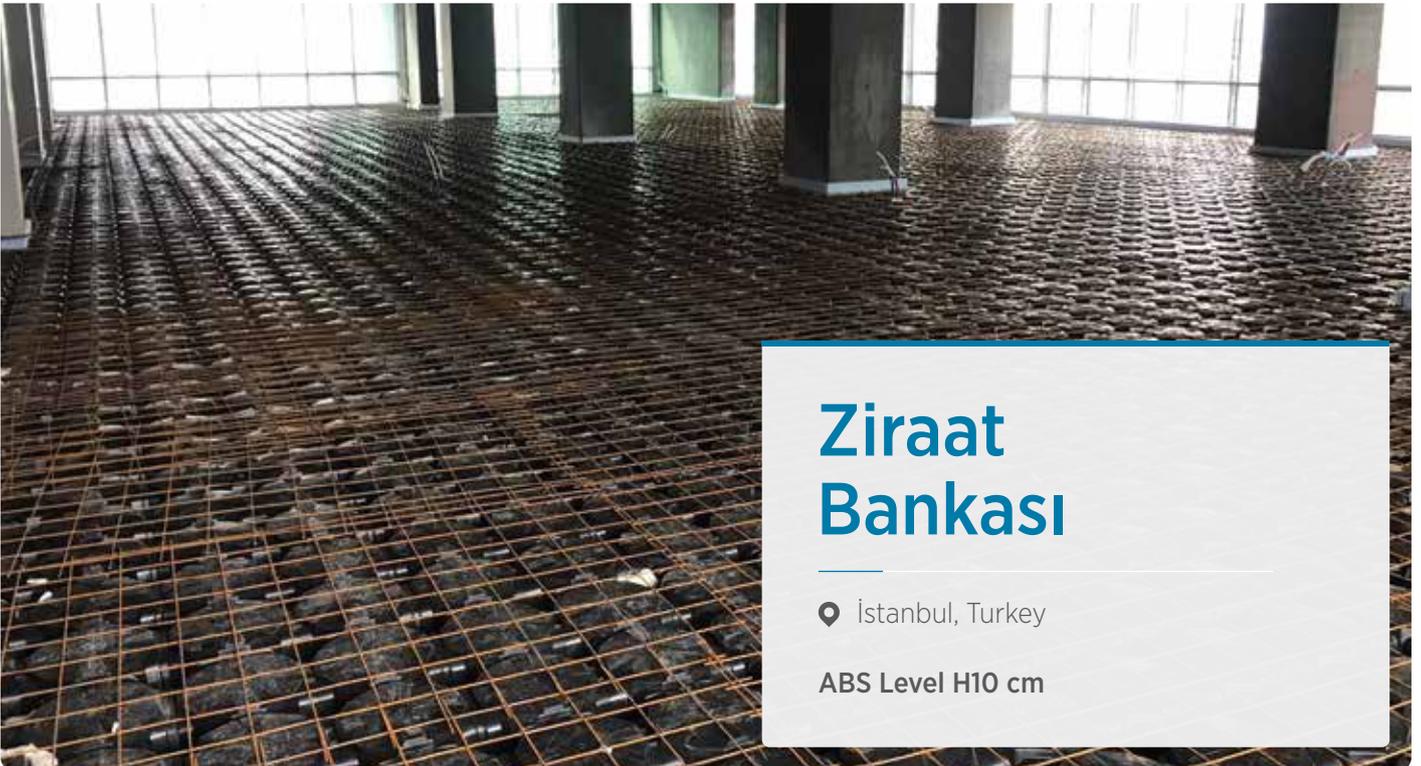


## Premier Kampüs Ofis

📍 İstanbul, Turkey

ABS Level H15 cm

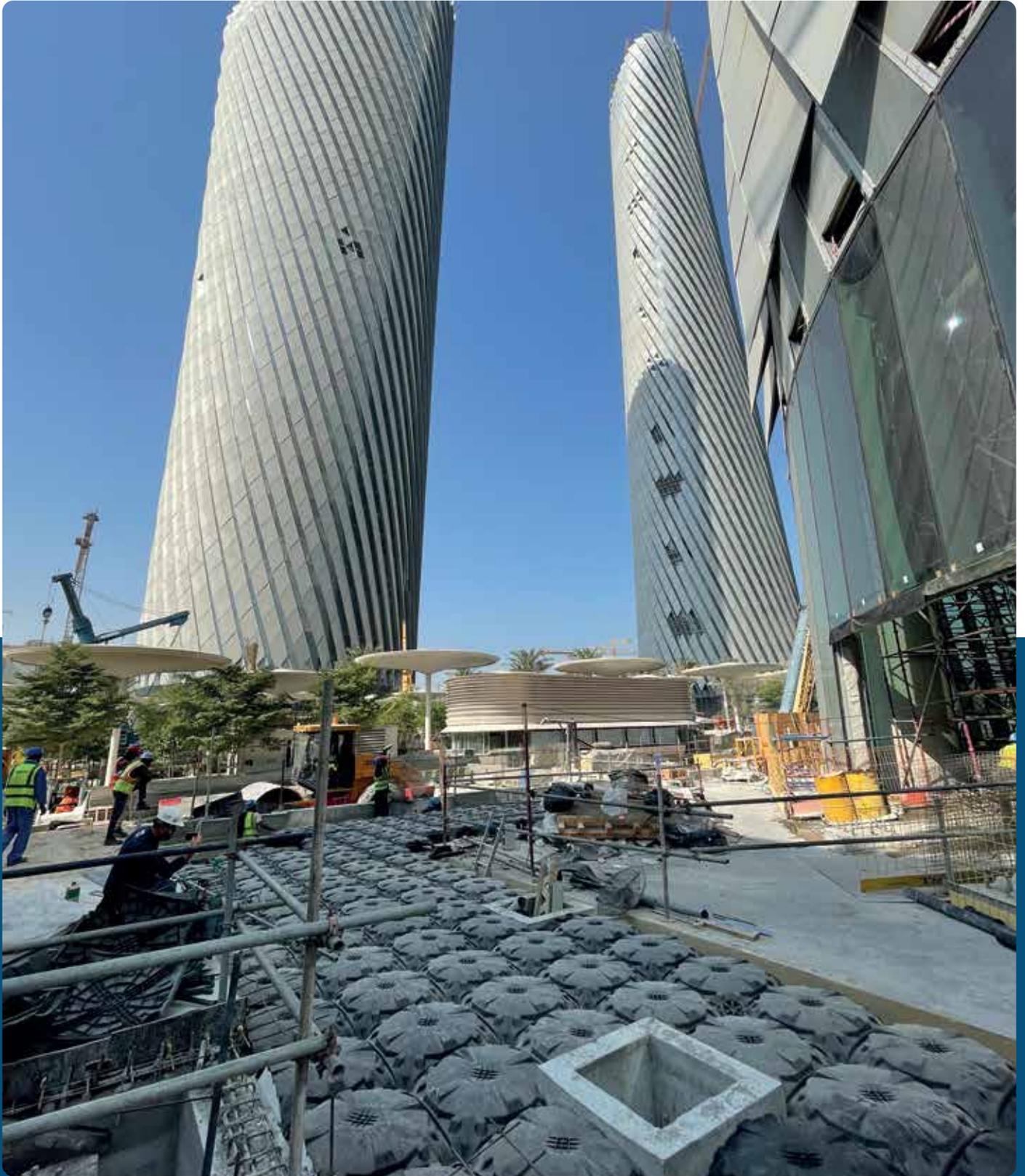




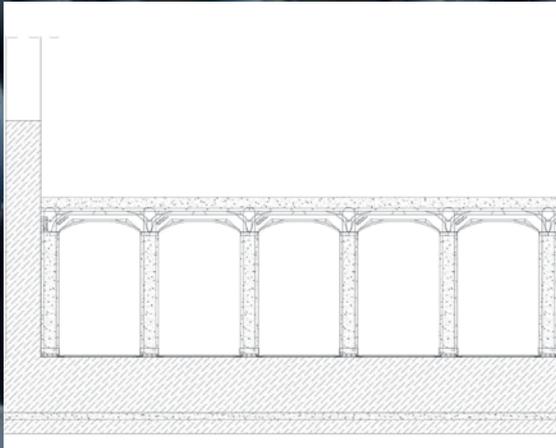
## Ziraat Bankası

📍 İstanbul, Turkey

ABS Level H10 cm

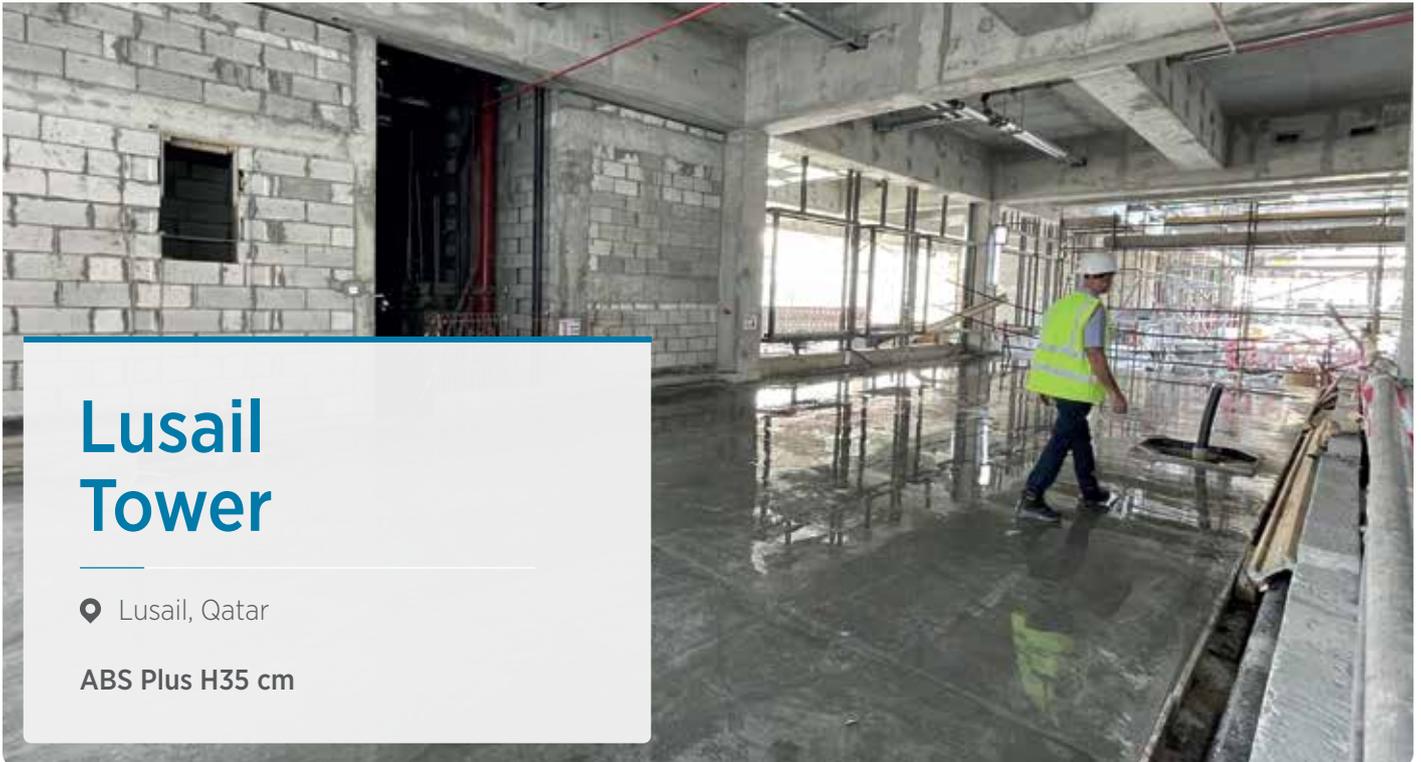
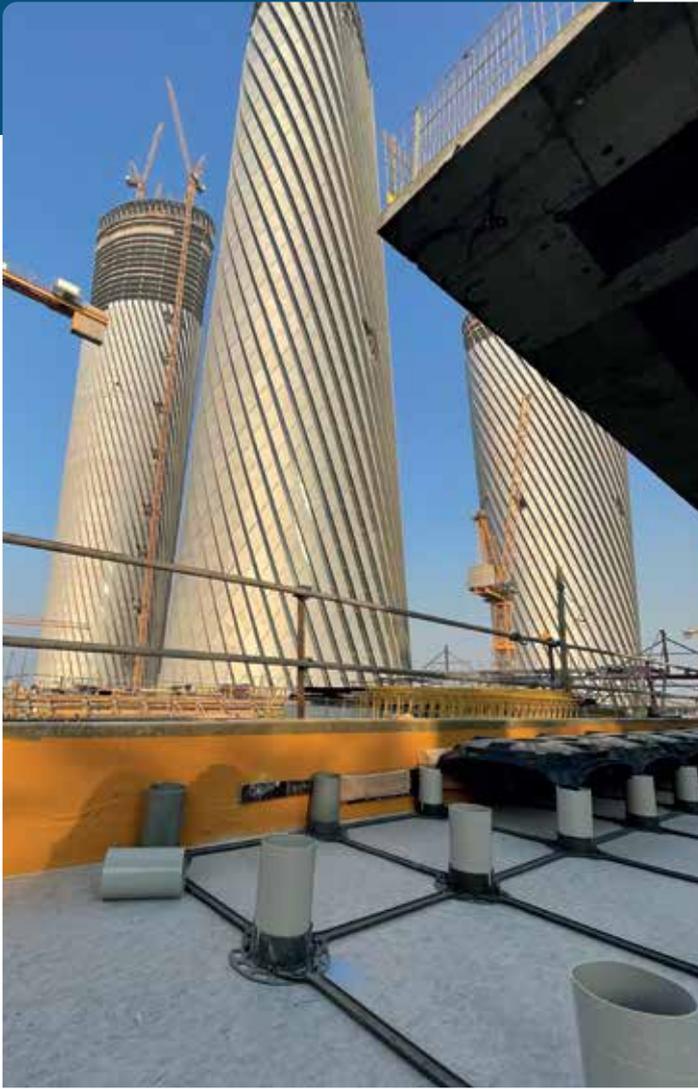


# OTHER LIGHTWEIGHT FILLING APPLICATIONS



Level variations between different usage areas in a building can be eliminated by using ABS Disposable Formworks to construct reinforced raised floors. The structure becomes only as heavy as the concrete in the legs and the topping concrete that covers the disposable formworks. The ABS Disposable Formwork is the lightest application that can be made on any floor of the structure.

**OTHER LIGHTWEIGHT  
FILLING APPLICATIONS  
REFERENCE APPLICATION**



# Lusail Tower

📍 Lusail, Qatar

ABS Plus H35 cm



# Istanbul Finance Center

📍 Istanbul, Turkey

ABS Plus H30 cm

OTHER LIGHTWEIGHT  
FILLING APPLICATIONS  
REFERENCE APPLICATION

[disposableformwork.com](http://disposableformwork.com)



# İstinyePark İzmir

📍 İzmir, Türkiye

ABS Plus H90 cm

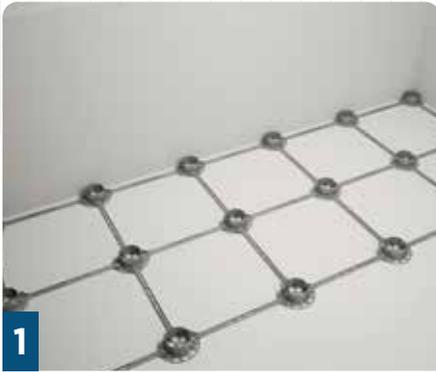


### 3. İstanbul Project

📍 İstanbul, Turkey

ABS Plus various heights





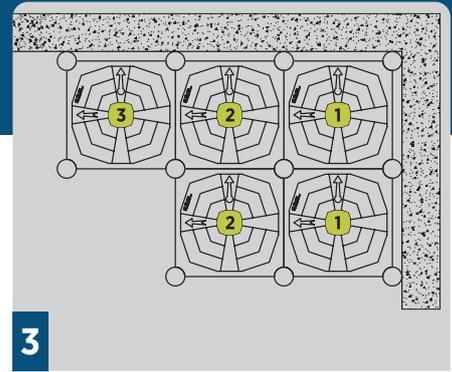
**1**

Place the bases using the spacers so that the base's flat side is adjacent to the wall. Cut the base creating a second edge so that it fits into a corner.



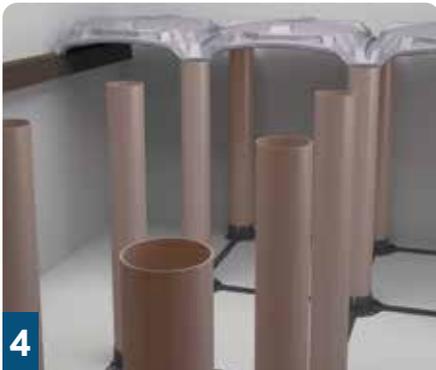
**2**

Press the legs that have been cut according to the project firmly into the base slots.



**3**

Place the domes on the legs, from right to left and from top to bottom, checking that the domes fit over each other and on the legs firmly. The arrows on the domes should always indicate the direction in which the installation operator looks.



**4**

Inserting the last row of ABS Plus domes: Example 1; full dome on the wooden console attached to the wall.



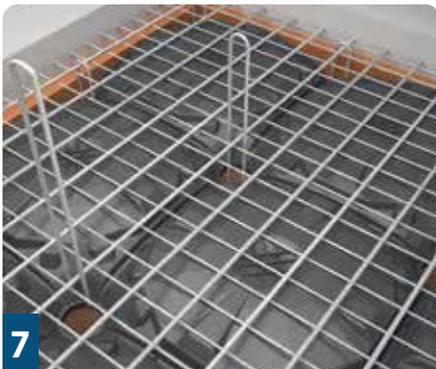
**5**

Inserting the last row of ABS Plus domes: Example 2; Placing a cut dome on the wooden console attached to the wall.



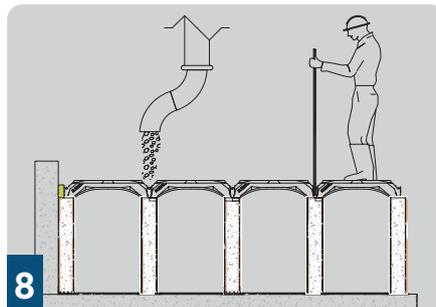
**6**

In the case of full-dome wall finishes where the PVC pipes legs are adjacent to the walls, place ABS Plus dome side closer or 5x10 wooden wedges on the pipes and close the cavities against concrete leaks.



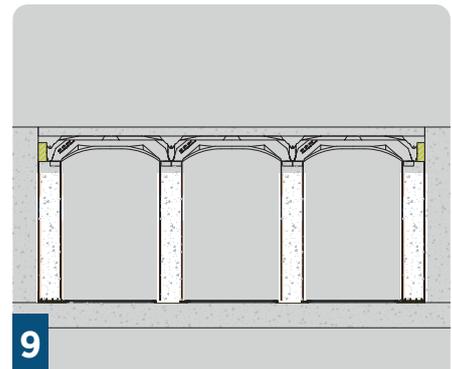
**7**

Place project specific welded steel mesh on the concrete-sealed disposable formworks and place vertical steel rebars into the legs.



**8**

First, fill the pipes with at least C25 class and at least S4 viscose concrete. The mouth of the pump hose should be kept up to 20 cm above the domes. Every legs should be stabbed with a steel rod to release the air trapped in the leg. Fill the domes and topping concrete after filling the pipes.



**9**

Use a vibrator when pouring the concrete of the domes and topping slab. Depending on the ambient conditions, the concrete should be moistened sufficiently.

**INSTALLATION VIDEO**

[dipsosableformwork.com/videos](https://dipsosableformwork.com/videos)



SCAN TO WATCH

**INSTALLATION GUIDE**

[dipsosableformwork.com/documents](https://dipsosableformwork.com/documents)



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