

PP level DUO MAXI

Modular System for Raised Exterior Floors



FOR PROFESSIONAL USE ONLY

DESCRIPTION

PP level DUO MAXI System is ideal for transforming unused patios and rooftops into desirable living spaces. The pedestal system raises/elevates the pavers and levels the floor by compensating for a sloped substrate up to 5%, thanks to the self-leveling head. This modular system allows for easy maintenance and access to conduits, waterproofing and drainage systems beneath the pavers. The resulting open joints between pavers allow for water to flow through the assembly, eliminating the risk of freeze/thaw damage. Pedestal heads are automatically self-leveling or can be easily converted into fixed heads with the use of the *PP level DUO MAXI* locker ring.

FEATURES AND BENEFITS

- Available in four sizes, providing support from 1" to 5-7/8" (28 to 150 mm)
- Tube extensions are available for additional height where needed, up to a maximum height of 39" (994 mm). The tube extension is 3-1/8" (80 mm).
- Pedestal heads are self-leveling or can easily be converted into fixed heads.
- One-size pedestal head fits on all four sizes of pedestals.
- Noise-absorption disks are available as an extra accessory to be positioned on the pedestal heads.
- The optional L-shaped head allows for the installation of wood decking using the same pedestal base.
- Conduits and other utilities can be run beneath pavers and are easily accessed.
- The final surface is flat and comfortable to walk on.
- There is no standing water on the floor surface because joints remain open and water passes through.
- There is no contribution to efflorescence on the tile surface and down the fascia and vertical walls.
- Eliminates freeze/thaw concerns that might exist with conventional bonded systems

- No movement joints are necessary.
- Without the need for mortar, sand or cement, the system reduces labor as well as minimizing overall weight load on the structure.
- Recyclable: The pedestals may be removed and recycled at the end of their service life.
- Resistant to temperatures from -40°F to 167°F (-40°C to 75°C)

WHERE TO USE

PP level DUO MAXI System is used as a support for external raised floors in various materials, such as ceramic or natural-stone tiles, concrete pavers, porcelain pavers and wood decking:

- On terraces, balconies and roof decks
- On waterproofing membranes, rigid insulating panels and any type of sound, compact installation surface
- For residential and commercial applications

Check with the flooring manufacturer to see if the flooring material is suitable for installation on the pedestals.

SUITABLE SUBSTRATES

- Roof deck membranes such as TPO-pitched, PVC, EPDM-flat and torch-down asphalt
- MAPEI's *Mapedrain*™ drainage composites
- Insulation boards that offer compressive strength of at least 40 psi (0.26 MPa) per ASTM C578
- MAPEI's *Mapeguard*® 2 membrane
- MAPEI's *Mapesonic*™ RM underlayment

LIMITATIONS

- Utilize pavers and tiles that are designed for pedestal systems, that can withstand the point load for the project.
- Do not use the PP level DUO MAXI System with any pavers that are not recommended for exterior applications.
- Ensure per the manufacturer's installation instructions that the waterproofing/insulation system being used under the pedestals is compatible with pedestal systems.
- Do not install a pedestal system over a waterproofing or insulation system that has compressive strength less than 40 psi (0.26 MPa).
- Do not install a pedestal system directly over a MAPEI liquid-applied waterproofing membrane (such as *Planiseal*® CRI). Rather, install a rubber mat such as PPL/S or a *Mapedrain* drainage composite over the waterproofing membrane before installing the pedestal system.
- A design professional may be required for wind uplift or wind equalization when installing in areas subject to hurricanes or heavy winds.

COMPONENTS OF PP LEVEL DUO MAXI SYSTEM

PP level DUO MAXI pedestals

Available in four sizes, these pedestals include a base and threaded screw for easy height adjustments and locking mechanism. The base includes a series of holes to allow rainwater runoff and six pre-cut marks to be used as a guide if the pedestal bases need to be cut for customization. Pedestals can be adjusted higher with

the addition of the extension piece. *PP level DUO MAXI* pedestals provide maximum durability due to high compressive strength and are made from durable material resistant to all weather conditions, including UV light, atmospheric agents, and temperatures from -40°F to 167°F (-40°C to 75°C).

PP level DUO MAXI Head

This self-leveling head is made of polypropylene and can be equipped with a noise-absorption disk, which provides soundproofing and maximum stability for the flooring. The head can compensate for gradients of up to 5%, allowing for a perfectly level finished floor. The head can be converted to a fixed head by using the locker ring conveniently placed at the base of the pedestal. Snap it and insert it under the head to go for a fixed head. Each *PP level DUO MAXI Head* is 5-1/8" (130 mm) in diameter and has four removable spacer tabs as well as available thicknesses of 3/32", 1/8" and 5/32" (2, 3 and 4 mm).

Tube Extension P1/80TE

The L/56/91B and XL/87/150B models can be extended by adding Tube Extension P1/80TE, allowing for a maximum pedestal height of 3.9 feet (1.19 m).

Locker ring

If a pedestal with a fixed head needs to be used, the self-leveling head may be locked in position by adding a locker ring that is conveniently positioned at the base of every pedestal. Simply snap the locker ring and insert it on top of the screw.

PP level DUO MAXI Key

The total height of the pedestals is easily adjusted either during floor-covering installation or once the floor has been completed by using this special adjustment key/tool. It adjusts the height of the threaded section without modifying the position of the head or base. *PP level DUO MAXI Key* also has a specially designed slot that can be used to easily remove the spacer tabs from the head when required.

PPLM/TA head for aluminum joist

PPLM/TA is the particular head designed to be used in combination with the aluminum joist PPL/Π. The installation of aluminum joists is recommended with ceramic planks and whenever there is the need for extra safety, as in the case of high-height installations.

PP level DUO MAXI Head-Deck is an optional head offered as part of the system if the installation involves wood or metal joists instead of pavers. The L-shaped head can be used to fasten joists in place using screws.

Heights of PP level DUO MAXI pedestals



Small Base

S/28/39B

Height: 1-1/8" to 1-9/16"
(28 to 39 mm)



Medium Base

M/38/57B

Height: 1-1/2" to 2-1/4"
(38 to 57 mm)



Large Base

L/56/91B

Height: 2-3/16" to 3-9/16"
(56 to 91 mm)



Extra Large Base

XL/87/150B

Height: 3-7/16" to 5-7/8"
(87 to 150 mm)

INSTALLATION INSTRUCTIONS

Positioning the pedestals

- The pedestals are simply placed on the approved substrate, with no adhesive or other type of fastening solution required. The pedestals must be positioned according to the installation layout, the tile format and the shape of the surface to be finished.
- Add the self-leveling head to the top of the pedestals and use the appropriate spacer tab configuration based on its positioning in the room/space:
- For installation in the middle of a room: All four spacer tabs should remain in place.
- For installation around the perimeter: Remove the pre-cut spacer tabs to adapt the head to specific application requirements as follows:
 - For installation against a wall, remove two spacer tabs to allow two tiles to be installed along the perimeter.
 - For installation in corners, remove all four spacer tabs to obtain a flat head.

Installing flooring

Once the pedestals have been positioned, flooring may be installed by simply laying the tiles on the heads of the pedestals.

Height adjustment

During or after installation, the position of the flooring may be adjusted with precision using the *PP Level DUO MAXI Key*. For finishing an installation on a vertical side where there is no perimeter wall, utilize the perimeter clips to create a vertical closure.

Technical Data for PP level DUO MAXI pedestals (S, M, L and XL)*

Laboratory Tests	Results
Diameter of base	8" (205 mm +/- 1.0)
Pedestal area	0.36 sq. ft. (330 cm ² +/- 5)
Thickness of spacer fins	3/32", 1/8" and 5/32" (2, 3 and 4 mm +/- 0.2)
Height of spacer fins	7/16" (11.5 mm +/- 0.2)
Slope correction	5% +/- 0.5
Hardness (Shore D)	90 +/- 3
Resistance to low temperatures	Down to -40°F (-40°C)

*U.S. measurement equivalents are nominal.

System Specifications

Material	Polypropylene
Temperature resistance	Resistant to temperatures of -40°F to 167°F (-40°C to 75°C)
Environmental resistance	Resistant to atmospheric agents, acids, aging and UV light

PP level DUO MAXI system components and related accessories



S/28/39B



M/38/57B



L/56/91B



XL/87/150B



P1/80TE



PPLM/T2

PPLM/T3

PPLM/T4

PP LEVEL DUO MAXI – base + screw

ITEM	DESCRIPTION	CODE	PACK
S/28/39B	Base + screw adjustable from H 1-1/8" to 1-9/16" (28 to 39 mm)	19250	24
M/38/57B	Base + screw adjustable from H 1-1/2" to 2-1/4" (38 to 57 mm)	19251	24
L/56/91B	Base + screw adjustable from H 2-3/16" to 3-9/16" (56 to 91 mm)	19252	24
XL/87/150B	Base + screw adjustable from H 3-7/16" to 5-7/8" (87 to 150 mm)	19253	24

No partial packaging

EXTENSIONS FOR PP LEVEL DUO MAXI

ITEM	DESCRIPTION	CODE	PACK
P1/80TE	Extension H 3-1/8" (80 mm)	19254	24

No partial packaging

L/56/91B+P1/80TE	=	5-3/8" to 7-11/16" (136 to 195 mm)	XL/87/150B+(6xP1/80TE)	=	22-5/16" to 30-1/2" (567 to 775 mm)
XL/87/150B+P1/80TE	=	6-9/16" to 10" (167 to 254 mm)	XL/87/150B+(7xP1/80TE)	=	25-1/2" to 34-5/8" (647 to 879 mm)
XL/87/150B+(2xP1/80TE)	=	9-3/4" to 14-1/8" (247 to 358 mm)	XL/87/150B+(8xP1/80TE)	=	28-5/8" to 38-11/16" (727 to 983 mm)
XL/87/150B+(3xP1/80TE)	=	12-7/8" to 18-3/16" (327 to 462 mm)	XL/87/150B+(9xP1/80TE)	=	31-3/4" to 42-13/16" (807 to 1 087 mm)
XL/87/150B+(4xP1/80TE)	=	16-1/32" to 22-5/16" (407 to 566 mm)	XL/87/150B+(10xP1/80TE)	=	34-15/16" to 46-15/16" (887 to 1 192 mm)
XL/87/150B+(5xP1/80TE)	=	19-3/16" to 26-7/16" (487 to 671 mm)			

PP LEVEL DUO MAXI – Self-leveling head for ceramic floors

ITEM	DESCRIPTION	CODE	PACK
PPLM/T2	Head for 3/32" (2 mm) joints	19255	48
PPLM/T3	Head for 1/8" (3 mm) joints	19256	48
PPLM/T4	Head for 5/32" (4 mm) joints	19257	48

No partial packaging

To place orders correctly, find the desired model, size and finish. Then place your order by using the letters "PPS" followed by the corresponding 5-digit code.



PPLM/TA



PPL/T1



PPL/D4

9,5



PPL/GM50
PPL/GM200



PPL/GR1



PPLM/TD

PP LEVEL DUO MAXI – Joist

ITEM	DESCRIPTION	CODE	PACK
PPLM/TA	Head for aluminum joist	19259	48
PPL/T1	Natural aluminum joist L 8' 1-1/2" (240 cm)	19260	8
PPL/D4	5/32" (4 mm) spacer for PPL/T1 joist	19398	500
PPL/GM50	Noise-absorption rubber for PPL/T1 joist – 164.04' (50 m) per roll	19263	1
PPL/GM200	Noise-absorption rubber for PPL/T1 joist – 656.16' (200 m) per roll	19264	1
PPL/GR1	Connection joint for PPL/T1 joist	19265	250

No partial packaging

PP LEVEL DUO MAXI – Decking

ITEM	DESCRIPTION	CODE	PACK
PPLM/TD	Head for decking	19258	48

No partial packaging

PP LEVEL GRID

ITEM	DESCRIPTION	CODE	PACK
PPL/GRID	Safety grid, 19-1/2" x 19-1/2" x 1-9/16" (496 x 496 x 40 mm)	19295	132 pieces per pallet
PPL/GRL	Connector, 2-13/16" (72 mm) in diameter x 15/16" (24 mm) in height	19296	27 pieces per pack and 5,832 pieces per pallet
PPL/GRD4	Head spacer, 5-1/8" (130 mm) in diameter x 3/32" (2 mm) in thickness	19297	100 pieces per pack and 7,200 pieces per pallet



PPL/GRID



PPL/GRL



PPL/GRD4

To place orders correctly, find the desired model, size and finish. Then place your order by using the letters "PPS" followed by the corresponding 5-digit code.



10/15



P/5



SP1



SP2



SP3



CR/M



PPL/CT



PCC/01



PCC/02



PCC/03



PPL/DLTN



PPL/DLTN

PP LEVEL MINI Head 5/32" (4 mm)

ITEM	DESCRIPTION	CODE	PACK
10/15	Adjustable support from H 3/8" to 9/16" (10 to 15 mm)	19351	20
P/5	Extension H 3/16" (5 mm) for item 10/15 (max. 3 extensions = + 9/16" [15 mm])	19350	20

No partial packaging

SP

ITEM	DESCRIPTION	CODE	PACK
SP1	Fixed height support diam. 6-1/8" (155 mm), H 9/16" (14 mm)	19090	360
SP2	Leveler for SP1 support - H 1/16" (1 mm)	19092	1000
SP3	Leveler for SP1 support - H 1/8" (3 mm)	19093	500

No partial packaging

PP LEVEL DUO MAXI – Accessories

ITEM	DESCRIPTION	CODE	PACK
CR/M	Adjustment key	19376	12
PPL/CT	Insert for screwdriver drill	19306	1
PCC/01	Perimeter clip (base + head)	19382	30
PCC/02	Corner clip (base + head)	19383	4
PCC/03	Wall clip in stainless steel	19384	50
PPL/DLTN	Noise absorption disk for head, 4-5/16" (11 cm) diam. x 1/8" (3 mm) thick	19366	48
PPL/S	Rubber mat, 8-1/4" (21 cm) diam. x 1/64" (0.2 mm) thick	19385	100
PPL/DLT	Leveling disk for head, 4-3/4" (12 cm) diam. x 1/64" (0.2 mm) thick	19378	100
PPL/DLB	Leveling disk for base, 8-1/4" (21 cm) diam. x 1/64" (0.2 mm) thick	19379	100
PPL/MS	Slab-lifting handle from 15-3/8" to 24-7/16" (39 to 62 cm)	19304	1
PPL/GS	Tile lifter for 5/32" (4 mm) joints	19305	1

No partial packaging



PPL/S



PPL/DLT



PPL/DLB



PPL/MS

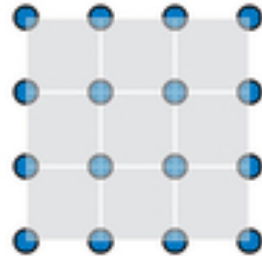


PPL/GS

Installation diagrams

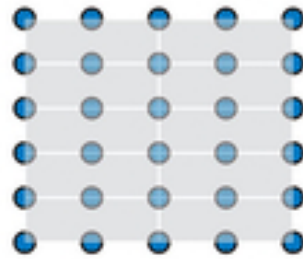
INSTALLATION WITHOUT JOISTS

12" x 24" (30 x 60 cm)
 16" x 16" (40 x 40 cm)
 20" x 20" (50 x 50 cm)
 24" x 24" (60 x 60 cm)

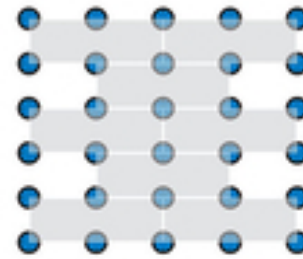


stack bond

16" x 32" (40 x 80 cm)
 18" x 36" (45 x 90 cm)
 24" x 36" (60 x 90 cm)
 12" x 48" (30 x 120 cm)
 16" x 48" (40 x 120 cm)
 24" x 48" (60 x 120 cm)

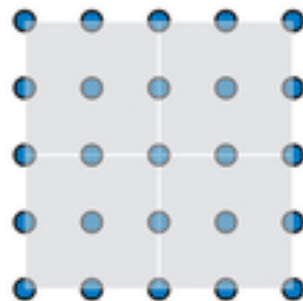


stack bond

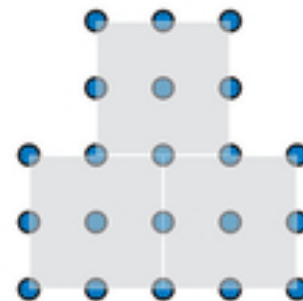


running bond

32" x 32" (80 x 80 cm)
 36" x 36" (90 x 90 cm)
 40" x 40" (100 x 100 cm)
 48" x 48" (120 x 120 cm)



stack bond

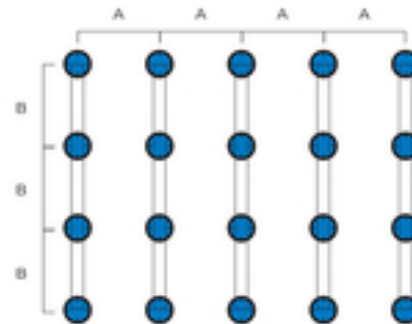


running bond

INSTALLATION WITH JOISTS

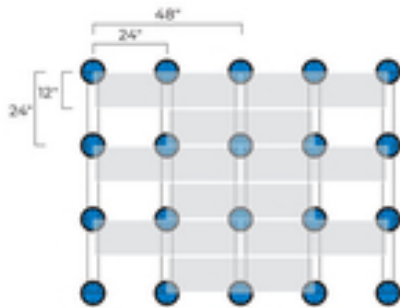
A = from 12" to 24" (30 to 60 cm) according to tile dimension and kind of installation

B = 15" (40 cm) high-foot traffic
 20" (50 cm) medium-foot traffic
 24" (60 cm) low-foot traffic

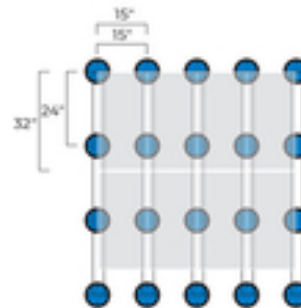


Some examples

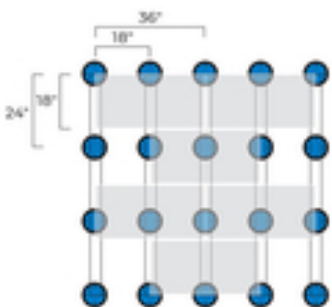
12" x 48" (30 x 120 cm)
 low-foot traffic



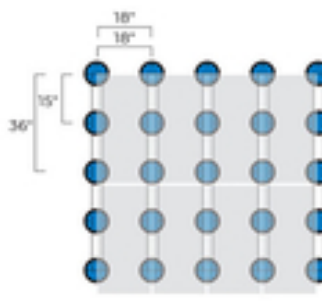
15" x 32" (40 x 80 cm)
 low-foot traffic



18" x 36" (45 x 90 cm)
 low-foot traffic



18" x 36" (45 x 90 cm)
 high-foot traffic



ADDITIONAL INFORMATION

For information on MAPEI's commitment to sustainability and transparency, as well as how MAPEI products may contribute to green building standards and certification systems, contact sustainability_USA@mapei.com (USA) or sustainability-durabilite@mapei.com (Canada).

WARNING

The test results shown in the TECHNICAL DATA table were obtained in compliance with test methods and curing cycles, if applicable, defined in the industry standards referenced on the Technical Data Sheet. Please note that the use of test procedures or methods other than those indicated in the table could lead to different values and that, in such cases, any liability of our company is excluded.

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Before using, the user must determine the suitability of our products for the intended use, and the user alone assumes all risks and liability. **ANY CLAIM SHALL BE DEEMED WAIVED UNLESS MADE IN WRITING TO US WITHIN FIFTEEN (15) DAYS FROM DATE IT WAS, OR REASONABLY SHOULD HAVE BEEN, DISCOVERED.**

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For the most current product data and BEST-BACKEDSM warranty information,
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