

POLKA PLATE®

 **NIPPON YAKIN KOGYO CO., LTD.**

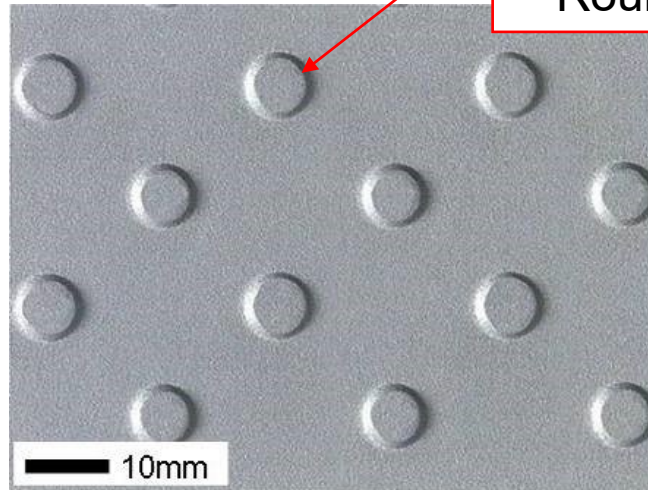
2022.05

What is the POLKA PLATE®?

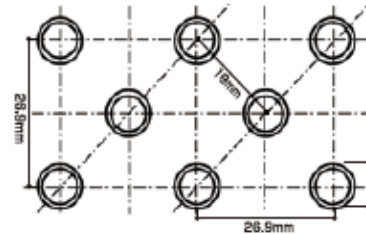
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Typical size

POLKA
PLATE®

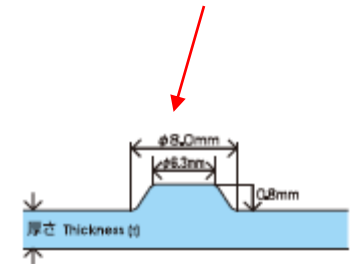


Round dot

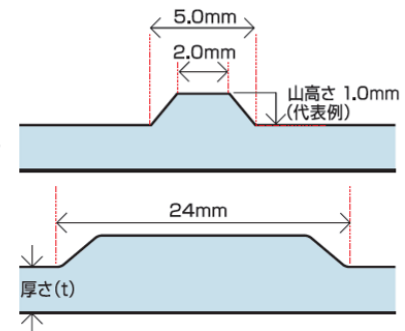
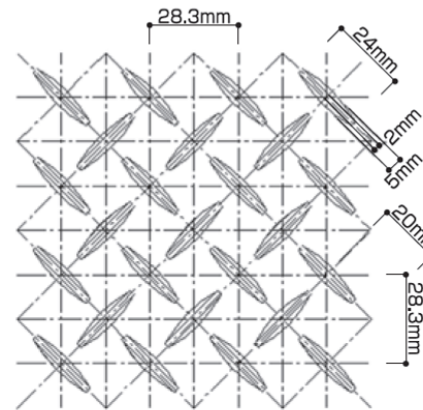
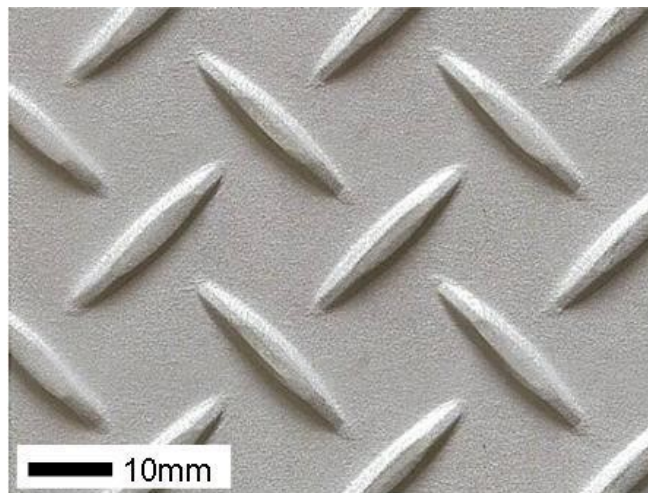


The surface on the top of dot has a good effect on anti-slip and cursoriality of the cart.

Top of dot is flat.

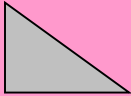
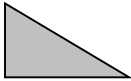




Checker
Plate



Anti-slip properties evaluation (DIN 51130)

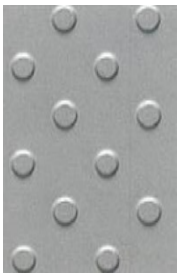
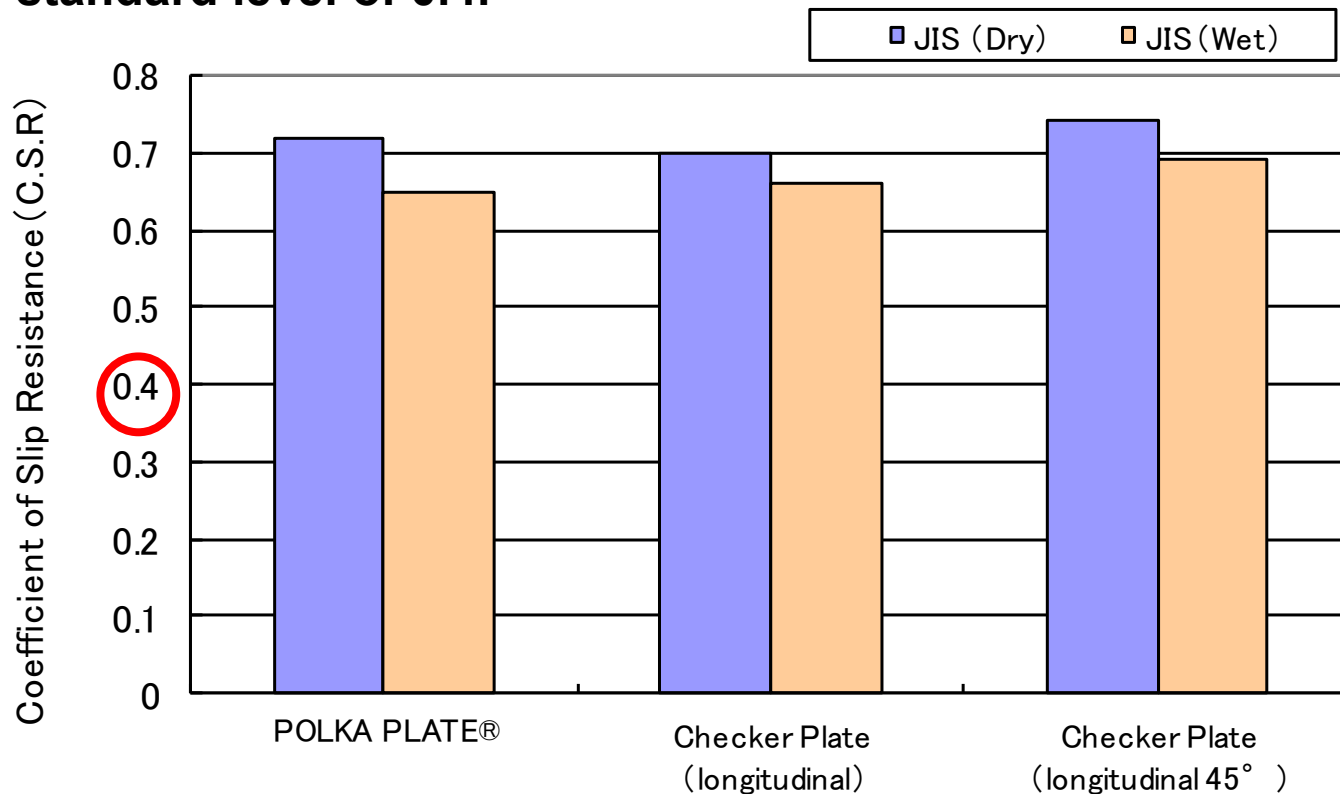
POLKA PLATE® awarded the highest rating for anti-slip performance under German DIN standards.

Classification (Rating Value)	Slip angle	Evaluation	Application example	Product
R13 (★Highest class)	Over 35° 	Very high friction	Meat processing facility	POLKA PLATE® Checker Plate
R12	27~35° 	High friction	Large kitchen floor	
R11	19~27° 	Increased friction	Store entrance	
R10	10~19° 	Normal friction	Floor of the public restroom	

Test method : The test subject is placed on the surface of the test plate coated by oil. The angle of the test plate is then slowly raised and at the point when the test subject slips from the surface, the inspectors measure the result.

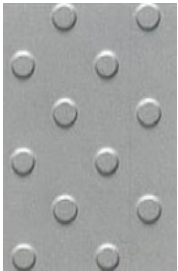
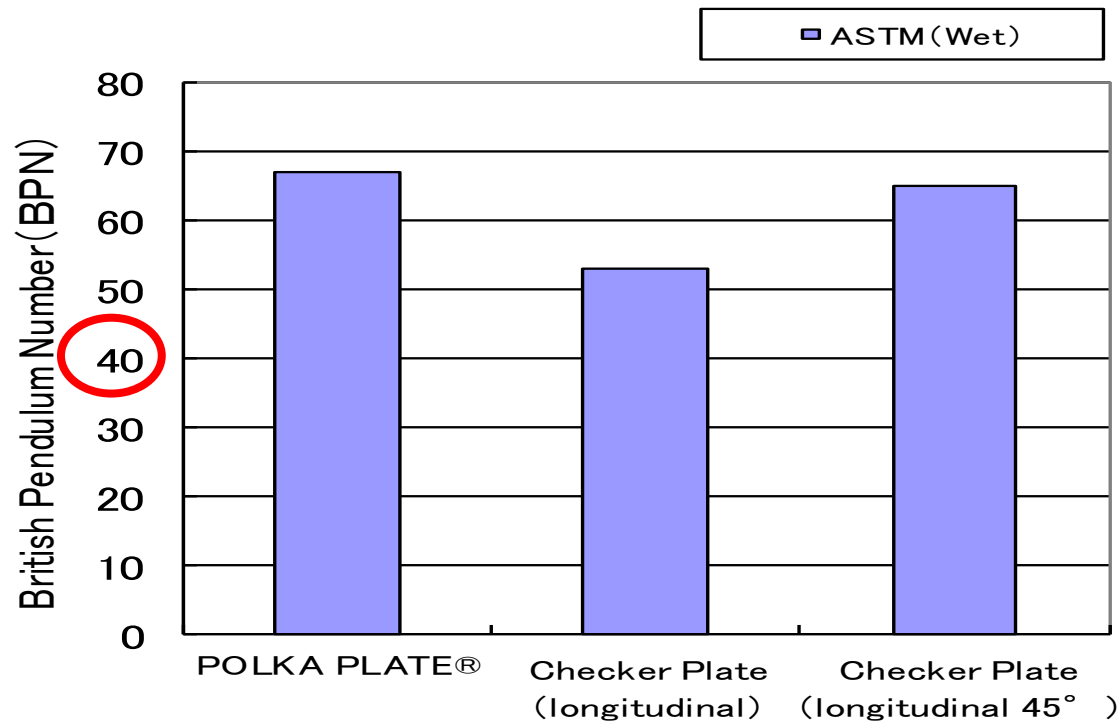
Anti-slip properties evaluation (JIS A 1451)

- **CSR (Coefficient of Slip Resistance)** measures the slip resistance defined by the barrier-free law.
- The **C.S.R levels of POLKA PLATE® and Checker Plate both surpass the general standard level of 0.4.**



Anti-slip properties evaluation (ASTM E 303)

- **BPN (British Pendulum Number)** is the evaluation number for pedestrians to walk safely and smoothly.
- The BPN of **POLKA PLATE®** and Checker Plate surpasses the general standard of 40 according to **ASTM E 303**.



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Comparison of the unit mass

Thickness		Unit mass (kg/m ²)		Weight difference A-B (kg/m ²)	Ratio of the weight difference (A-B)/B
(mm)	(")	POLKA PLATE® A	Checker Plate B		
3.18	1/8"	25.84	29.90	-4.06	-13.6%
4.76	3/16"	38.37	42.11	-3.74	-8.9%
6.35	1/4"	50.98	54.32	-3.34	-6.1%

※Unit mass of Checker Plate (ASTM Pattern B) : Please refer to ASTM A793 Table 1.

POLKA PLATE® is **at least 3 kg/m² lighter** than Checker Plate !

⇒ **Saving weight and reducing cost !**

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Comparison of the force

This measurement shows the amount of force required to carry a cart on the two types of floor plates.

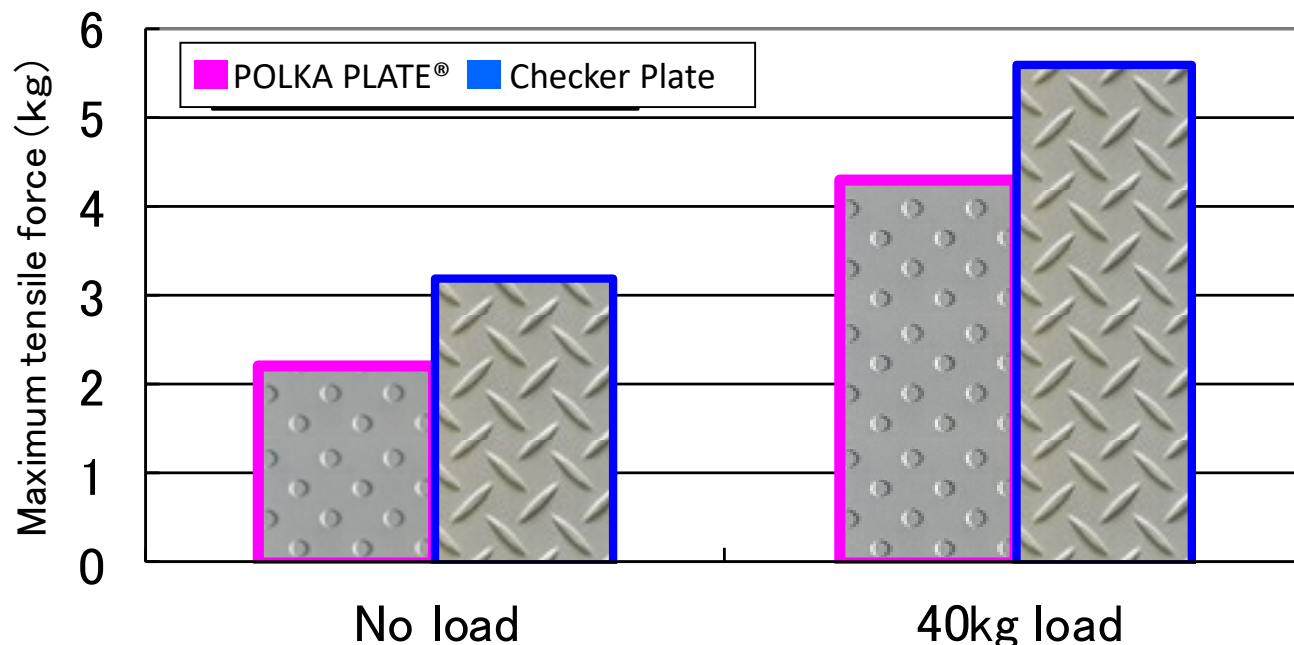


Fig. The measurement result of tensile force when the cart is pushed.

Less force is required in order to push the cart with the POLKA PLATE® than the Checker Plate.

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Comparison of noise

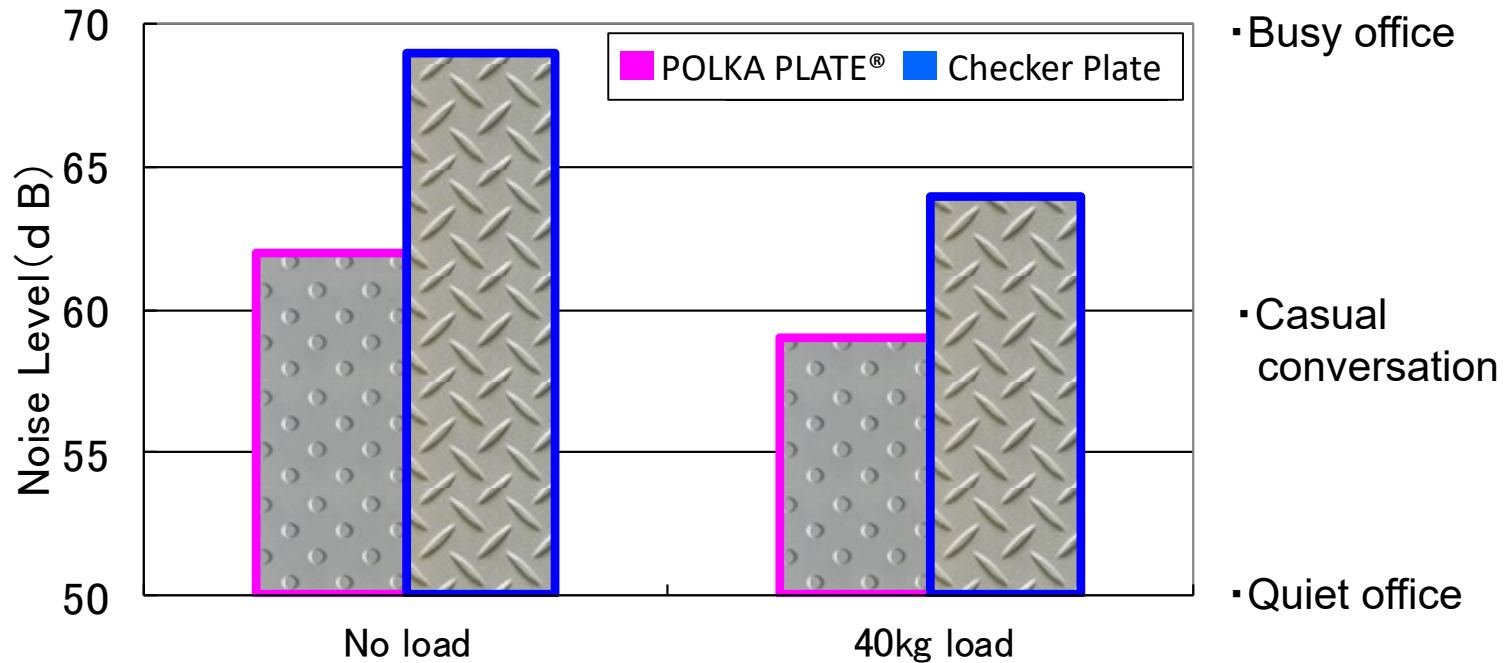
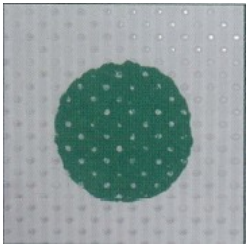


Fig. Noise produced when pushing the cart
(Distance : 1 meter)

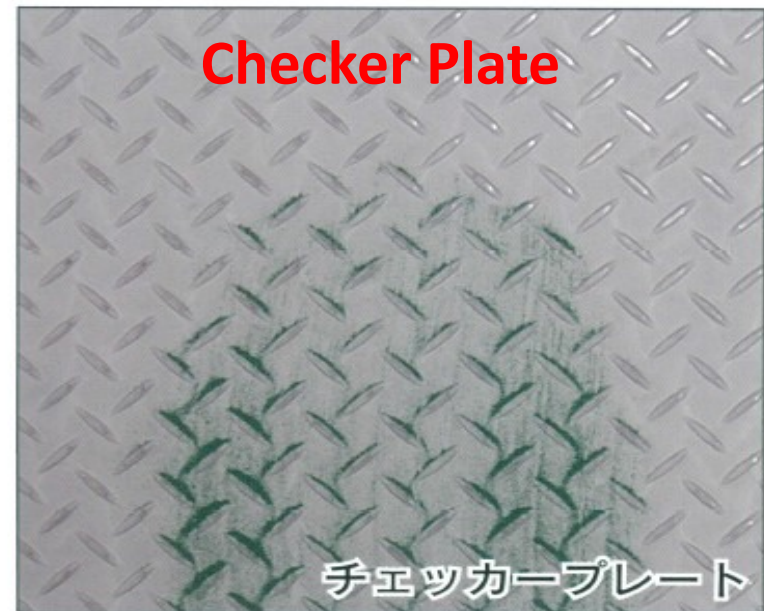
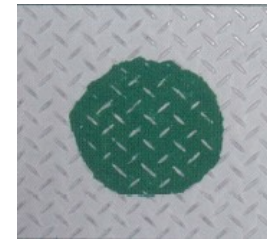
A cart produces less noise on the POLKA PLATE® floor because the POLKA PLATE® has less bumps.

Cleaning properties

In comparison to the Checker Plate, the POLKA PLATE® 's round dots help with easy and beautiful cleaning. This is due to the shape of the round dots that lets water to drain smoothly after cleaning. Furthermore, this unique property will allow the surface to be spotless after a quick sweep.



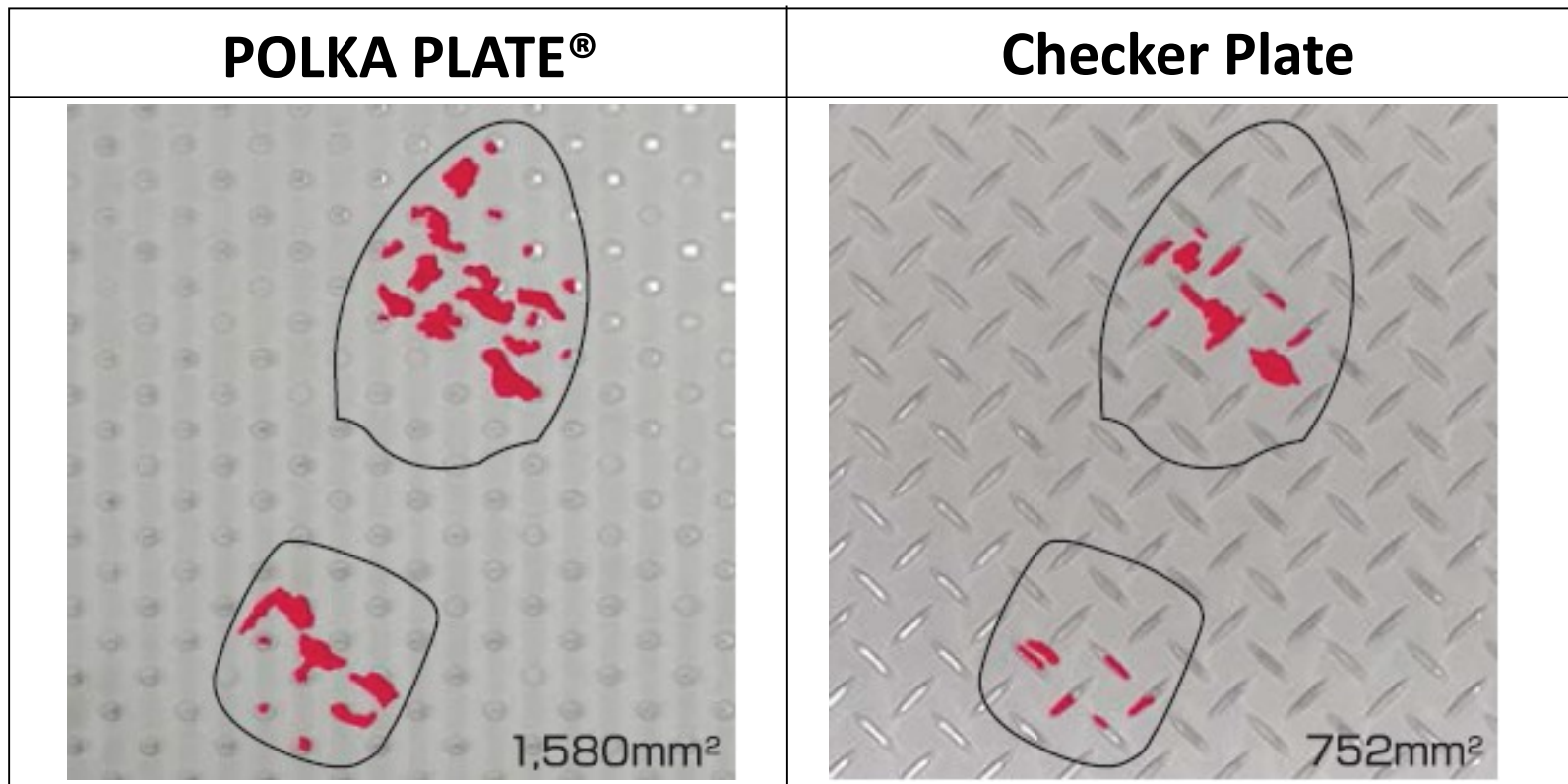
Stains and dusts after sweeping by a broom



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Comparison of the ground contact area

- The area of the POLKA PLATE® in contact with the sole of shoes is larger than the Checker Plate. This feature reduces the fatigue of a pedestrians' feet after walking for long hours.



Workability

【Welding】

- The welding procedure for POLKA PLATE® is not different from Checker Plate's.
- Flat area (base area) of POLKA PLATE® is larger than that of Checker Plate. This makes it easier for the welding procedure.

【Bending & Cutting】

- Flat area of POLKA PLATE® is larger than that of Checker Plate, which is beneficial for bending and cutting accurately in any direction.

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Other features

The carbon steel carbon floor plate is painted in order to avoid the corrosion from time to time.

It is not necessary to paint on the surface of stainless steel to prevent corrosion because of higher corrosion resistance.

Application example①

The floor and stairs in the food factory

- POLKA PLATE® is one of the most suitable materials for the food factory floor.



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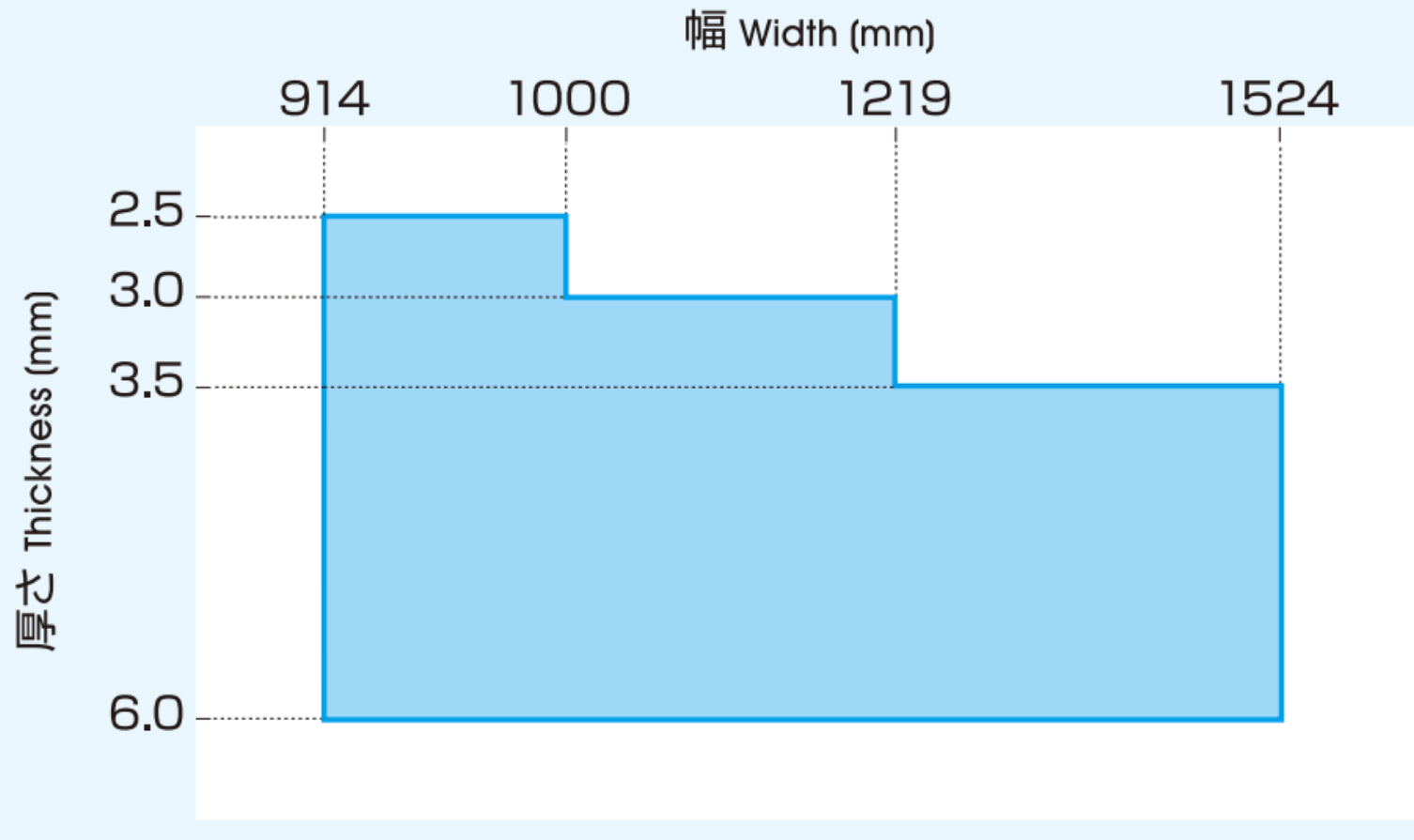
Application example②



Elevator floor

Available sizes (POLKA PLATE®)

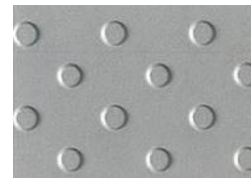
■ SUS304 Type 304



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Summary of POLKA PLATE®'s features

- Anti-slip properties evaluation is the highest class (R13) in DIN 51130.
- POLKA PLATE® is at least 3kg/m² lighter than Checker Plate in unit mass.
- Less noise and less bumps. Easier to move the cart.
- Easy and beautiful cleaning. More comfort to walk.
- POLKA PLATE® is applied for the floors and the stairs in the food factory, chemical plant and pharmaceutical factory.



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