

# 1

## PLANNING FOR ENTRANCE AREAS

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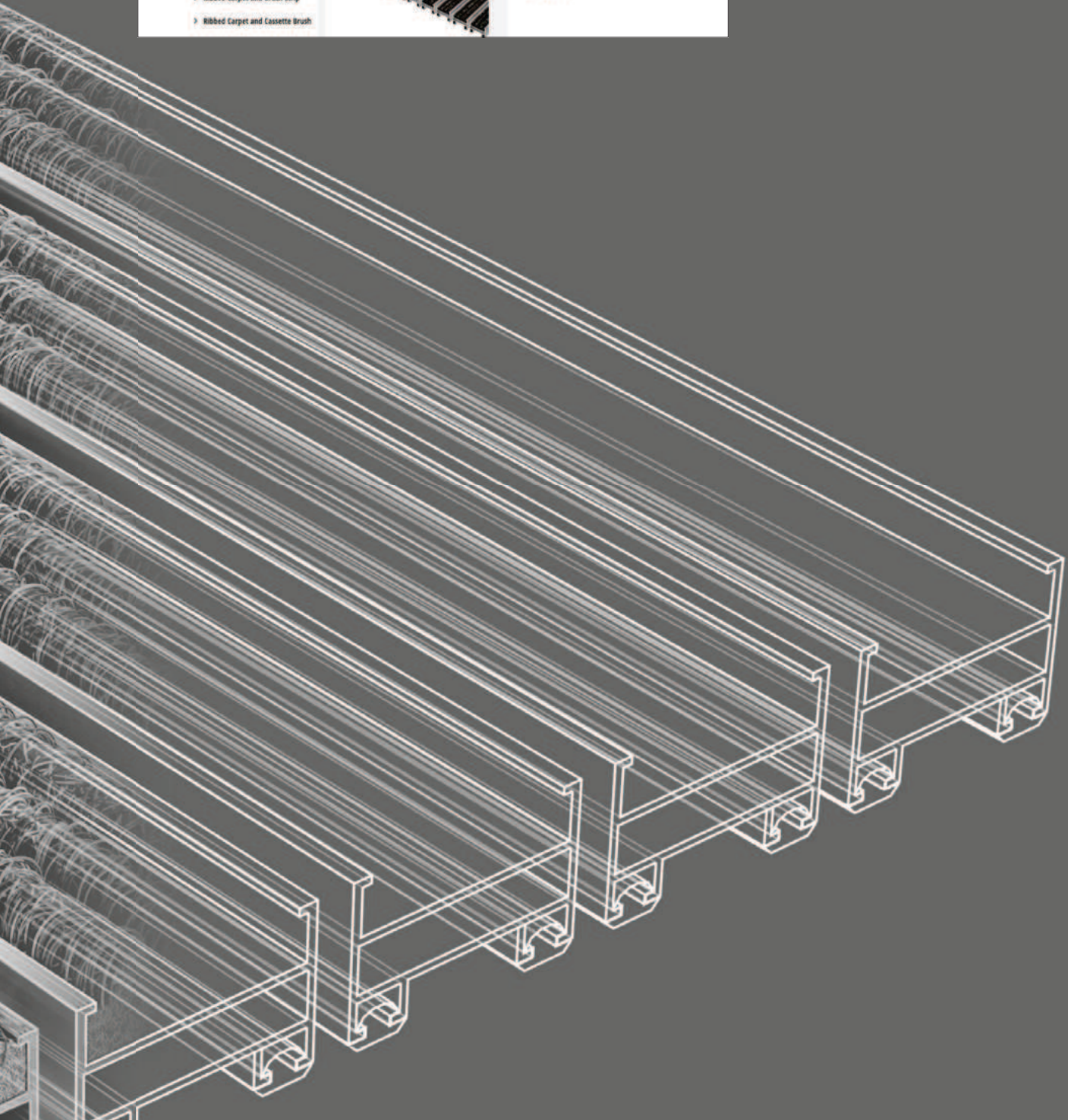


# BIM-BASED PLANNING AND BUILDING TOP CLEAN DOORMAT SYSTEMS AS DOWNLOAD



BIM (Building Information Modelling) is an efficient, model-based process for the efficient joint planning, implementation and operation of building and infrastructure projects. Using BIM, the classic architect's drawing is transformed into a three-dimensional digital model. All information obtained by project team members is compiled centrally for joint use.

Further information can be found on our website.





### A Lovely Entrance – a Strong Performance!

Top Clean entrance mats with exceptional design are an eye-catcher. Collecting dirt efficiently, they also ensure a high level of safety and cost effectiveness. Our all-purpose entrance matting systems may be used in indoor, intermediate, and outdoor areas. Profiles with various materials collect foot-borne coarse dirt and humidity outside the building, thereby significantly reducing the risk of accidents on slippery floors. Thanks to a range of available heights and material components with varying degrees of thickness, we are able to provide optimal solutions with the seal of quality "Handmade in Germany" for any entrance area.



1



Coarse Dirt Collecting Area

2



Intermediate Zone for heavily frequented entrance area

3



Fine Dirt and Damp Dirt Collecting Area



# OPTIMISED CLEAN-OFF ZONES TO AVOID BRINGING DIRT INTO BUILDINGS

**ZONE 1**

1


Coarse Dirt Collecting Area


 Outdoor Area

**ZONE 2**

2

Intermediate Zone for heavily frequented Entrance Areas


 Outdoor Area

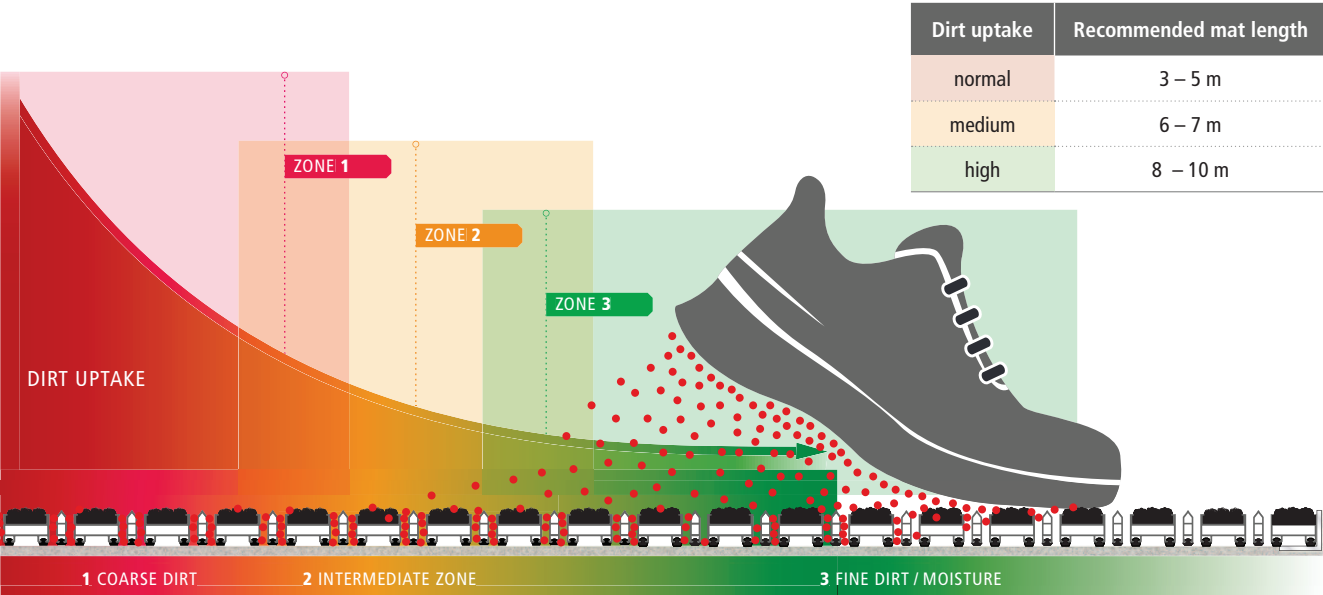
 Indoor Area

**ZONE 3**

3

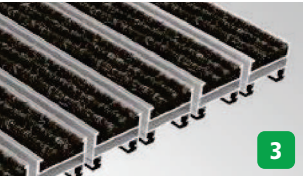
Fine Dirt and Damp Dirt Collecting Area

 Indoor Area

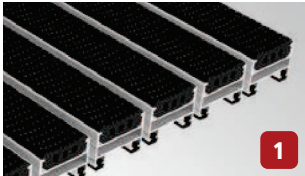


The length is vital, as the longer the mat, the more dirt it absorbs and therefore the lower the cleaning costs.

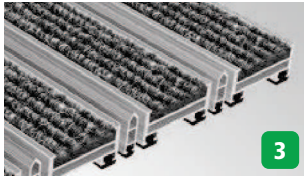
## EXAMPLES OF USE



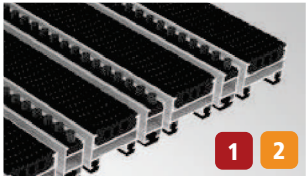
Ribbed Carpet



Grooved Rubber



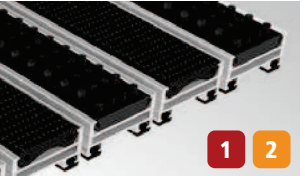
Ribbed Carpet and Scraper Bar



Grooved Rubber and Brush Strip



Ribbed Carpet and Brush Strip



Grooved Rubber and Cassette Brush



Ribbed Carpet and Cassette Brush



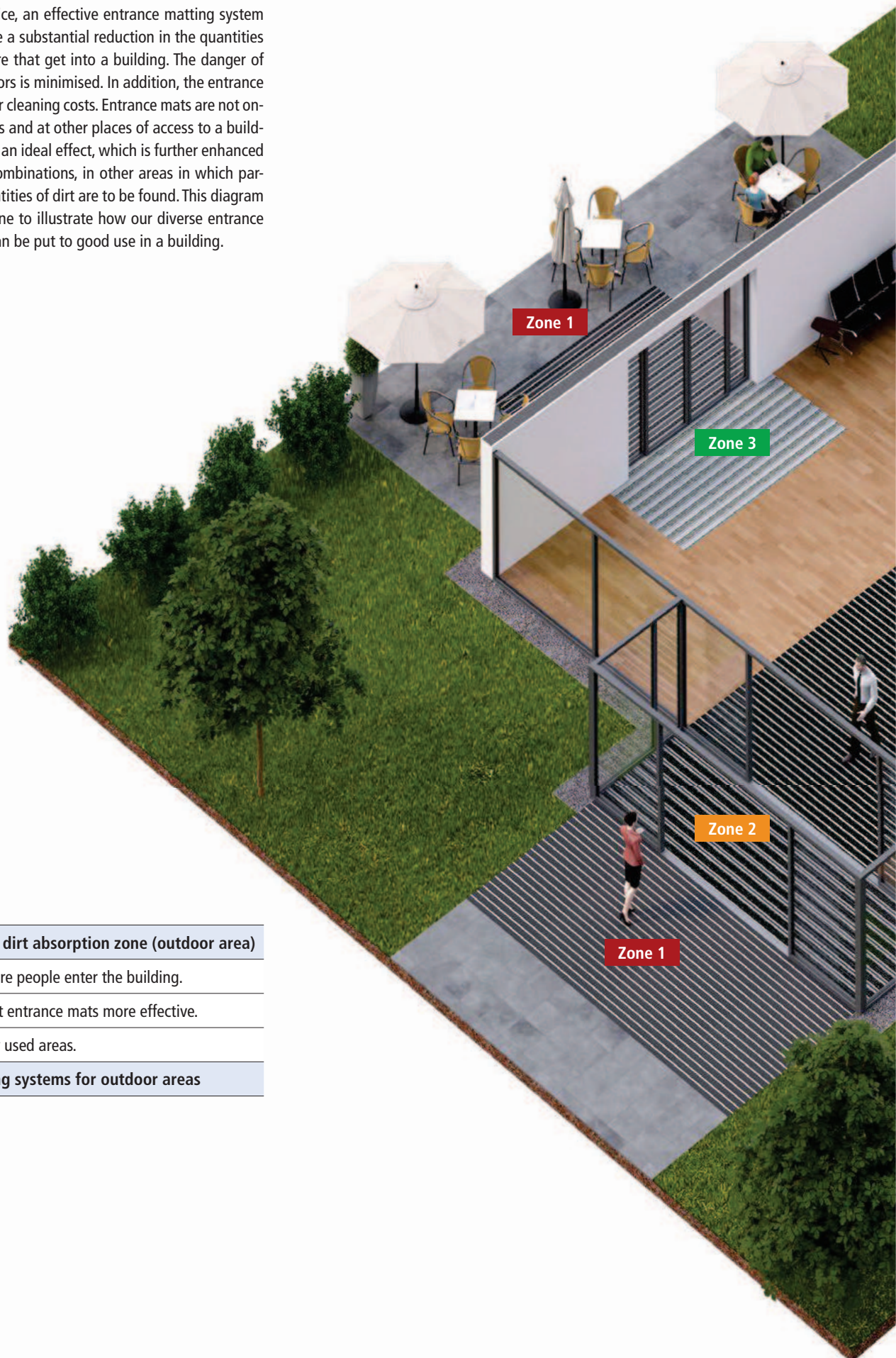
Cassette Brush



# 1 PLANNING FOR ENTRANCE AREAS

## Where are entrance matting systems used?

With the right choice, an effective entrance matting system can help to achieve a substantial reduction in the quantities of dirt and moisture that get into a building. The danger of slipping on wet floors is minimised. In addition, the entrance mats reduce regular cleaning costs. Entrance mats are not only used in entrances and at other places of access to a building. They also have an ideal effect, which is further enhanced by different mat combinations, in other areas in which particularly large quantities of dirt are to be found. This diagram serves as a guideline to illustrate how our diverse entrance matting systems can be put to good use in a building.



### Zone 1 Coarse dirt absorption zone (outdoor area)

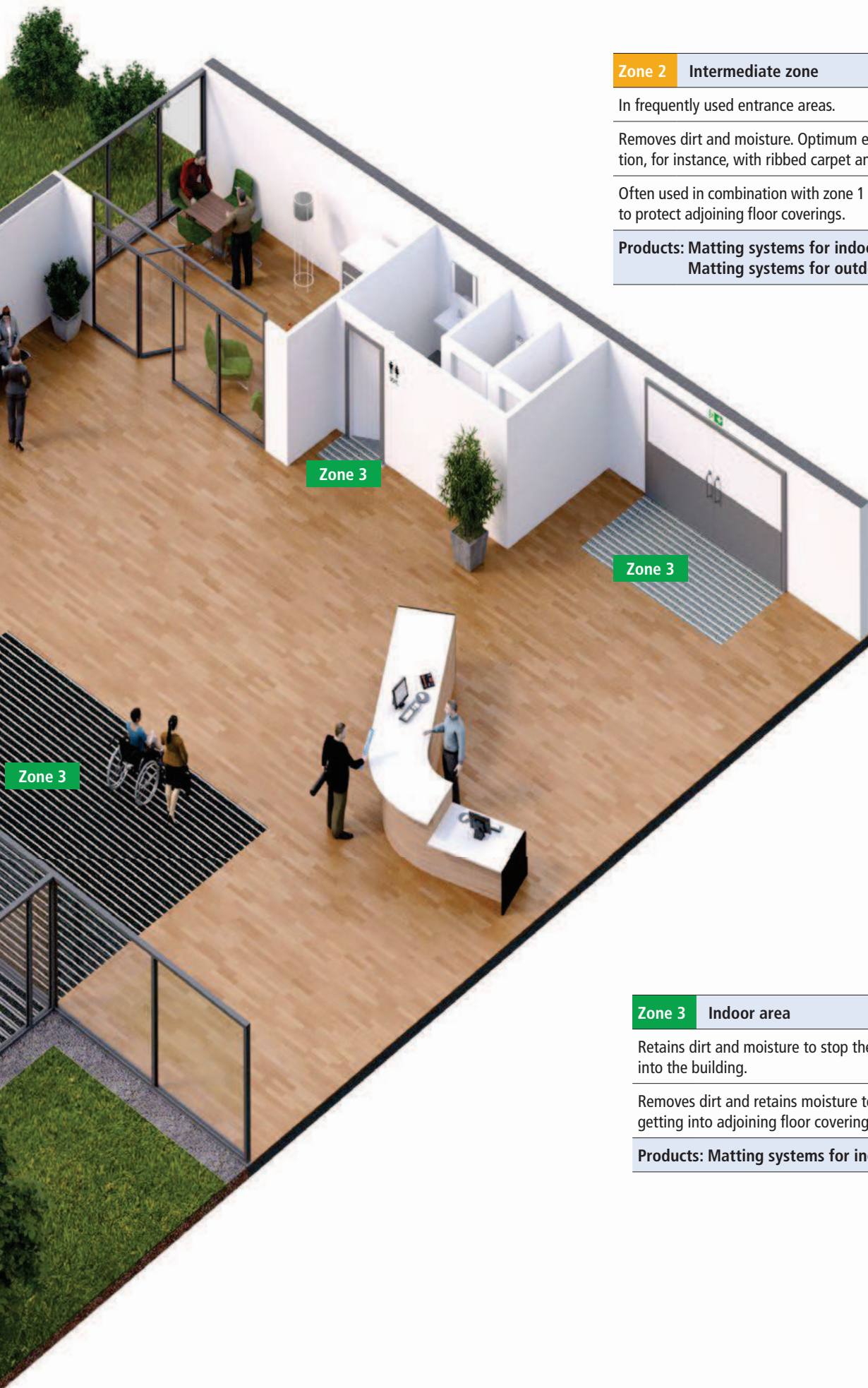
Removes dirt before people enter the building.

Makes subsequent entrance mats more effective.

Ideal in frequently used areas.

**Products:** Matting systems for outdoor areas





## Zone 2 Intermediate zone

In frequently used entrance areas.

Removes dirt and moisture. Optimum effect in combination, for instance, with ribbed carpet and brush strips.

Often used in combination with zone 1 entrance mats to protect adjoining floor coverings.

**Products: Matting systems for indoor areas**  
**Matting systems for outdoor areas**

## Zone 3 Indoor area

Retains dirt and moisture to stop them being carried into the building.






Removes dirt and retains moisture to stop them getting into adjoining floor coverings.

**Products: Matting systems for indoor areas**





## MAT HEIGHTS · LOAD · TRAFFIC

Entrance Matting Systems	Indoor Area	Indoor Area			Permissible static load kg per 100 cm <sup>2</sup> of area	
	 page	 page	 Mat height	 Traffic <sup>1)</sup>	 mat laid supported	 mat laid self-supporting <sup>2)</sup>
Top Clean LIGHT	32	–	ca. 10 mm	normal	7,000 kg	–
Top Clean TREND®	34	48	ca. 10 mm	normal	6,000 kg	–
Top Clean STABIL	38	54	ca. 10 mm	strong	8,000 kg	–
Top Clean TREND®	34	48	ca. 17 mm	medium	5,000 kg	200 kg
Top Clean STABIL	31	54	ca. 17 mm	strong	8,000 kg	250 kg
Top Clean TREND®	34	48	ca. 22 mm	medium	5,000 kg	300 kg
Top Clean TREND® XL	36	56	ca. 22 mm	medium	5,000 kg	300 kg
Top Clean STABIL	38	54	ca. 22 mm	strong	8,000 kg	550 kg
Top Clean STABIL XL	40	56	ca. 22 mm	strong	7,000 kg	550 kg
Top Clean TREND®	34	48	ca. 27 mm	medium	5,000 kg	500 kg
Top Clean STABIL XL	36	56	ca. 27 mm	strong	7,000 kg	550 kg
Top Clean OBJEKT	42	58	ca. 22 mm	high	10,000 kg	600 kg
Top Clean HIGH	44	60	ca. 42 mm	high	6,000 kg	800 kg









1) Normal = up to 2,800 footfalls per day; heavy load = above 2,800; extremely heavy load = above 5,100.

2) Maximum distance between supports: 300 mm (carrying capacity has to be tested for safety when dirt collecting trays are installed).

3) Trafficability of mats with brush cassettes and scraper bars is limited. Avoid accelerating, braking, and manoeuvring on the mats!





	A fully supported mat is suitable to drive over with permissible dynamic load <sup>3)</sup> :						
 Load per wheel	 wheel chair	 Luggage trolley	 shopping trolley	 transport trolley	 lift truck	 car	 fork lift truck
225 kg	■	■					
200 kg	■	■					
250 kg	■	■	■	■			
210 kg	■	■	■	■			
350 kg	■	■	■	■	■		
220 kg	■	■	■	■	■		
220 kg	■	■	■	■	■		
450 kg	■	■	■	■	■	■	
450 kg	■	■	■	■	■	■	
220 kg	■	■	■	■	■	■	
450 kg	■	■	■	■	■	■	
700 kg	■	■	■	■	■	■	■
650 kg	■	■	■	■	■	■	■

**Performance test at Bielefeld University of Applied Sciences:** The dynamic performance tests were executed at the independent Bielefeld University of Applied Sciences. The tests examined the performance of our aluminium mats by exposing them to different pressure ranges and driving over them with lift trucks.

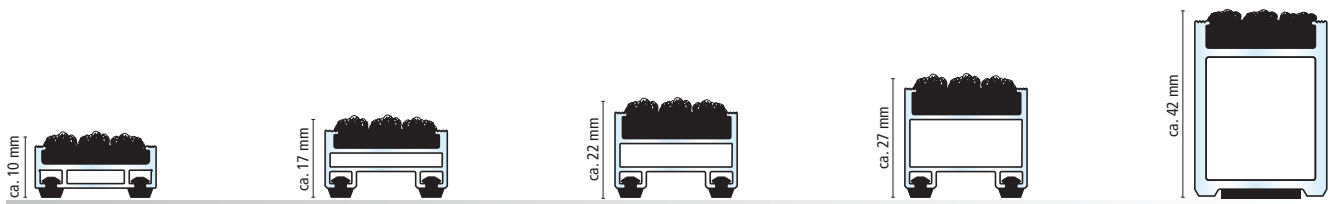
**Performance test at the Department of Civil Engineering at Munich University of Applied Sciences:** A testing machine with a capacity of 100 t examined the static capacity of our mats with a 10x10 cm (=100 cm<sup>2</sup>) pressure hull. The test laboratory at Munich University has been approved by the German Center of Competence in Civil Engineering (DIBt).



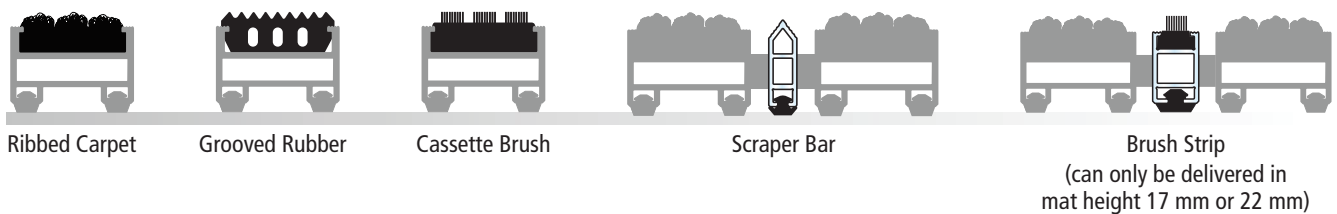


# 1 PLANNING FOR ENTRANCE AREAS

## Mat Heights



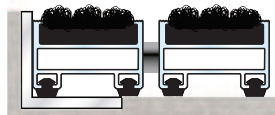
## Inlays/Additional Profiles



## Areas of Use

### Standard

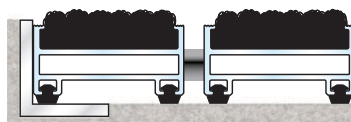
For use in entrance areas with normal pedestrian traffic.



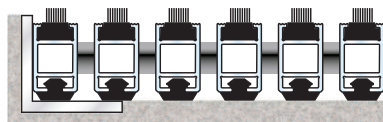
Top Clean TREND®



Top Clean LIGHT



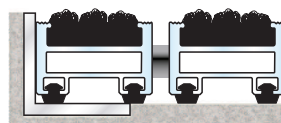
Top Clean TREND® XL



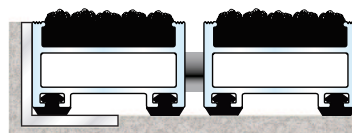
Top Clean BRUSH

### Heavy load

For use in entrance areas with heavy pedestrian traffic. Suitable for shopping trolleys in supermarkets or luggage trolleys in airports.



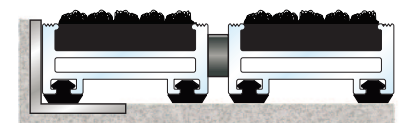
Top Clean STABIL



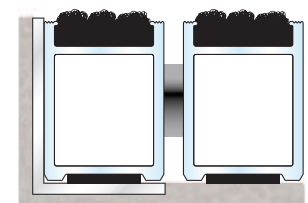
Top Clean STABIL XL

### Extreme load

For use in entrance areas with very high levels of pedestrian traffic. Shopping trolleys, pallet trucks or fork lift trucks may be used in these areas.



Top Clean OBJEKT



Top Clean HIGH





## Top Clean Mat Systems Prevent Impact Sound

The slightest structure-borne sound on a floor can significantly increase the level of footfall noise. Even a small discontinuity in the insulation can generate notable impact sound. All Top Clean entrance area floor mats feature **continuous and highly effective acoustic insulation** to prevent footfall noise. Every component in our comprehensive range of systems comes with a sound-absorbing rubber profile.

We are setting new standards with the consistent further development of our tried and tested system solutions. The guaranteed acoustic insulation is now integrated into the scraper bars for the Top Clean system. **Thus, all combinations of brush strips, scraper bars, ribbed carpet and grooved rubber or cassette brushes are equipped with an effective system reducing footfall noise.** This is achieved by fitting an insulating rubber underlay to the profile. Thanks to its longevity and high sustainability, this technology is superior to foam material.

The entire product range features a highly effective sound insulation system.

Shhh...  
soundproof!

A highly effective rubber underlay on the underside of the profile dependably reduces impact sound.





## Planning for Mats, Frames and Dirt Collecting Trays

### → Customer service:

Everything from one source... We offer our customers a flexible and mobile service for measuring and installation (digital measuring). Available upon request at extra charge

### → Mats for heavily frequented areas:

For entrance areas with heavy traffic (airports, supermarkets, shopping centres etc.) we recommend our aluminium profile mats Top Clean STABIL, Top Clean OBJEKT and Top Clean HIGH, which meet these special requirements (Indoor areas see pages 36-43; Outdoor areas see pages 52-59).

### → Optimum fitting:

a mat should always be in a frame that is fitted flush with the floor. Measuring and installation of the frame are described on page 81.

### → Laying mats without a frame:

The Top Clean TREND® mat in the 10 and 17-mm versions can be equipped with a ramped edge so that a well is not required for any subsequent relaying (see page 81).

### → When ordering a system:

that consists of a frame with mat or a well with mat, please indicate the outside dimensions of the frame (on page 26).

### → Existing angle frames:

If you already have an angle frame, please indicate the clear inside dimensions of the frame. We will deduct approx. 5 mm to calculate the production size for the mat (see also notes on laying tolerance on page 26).

### → Special designs:

For special designs (see page 71) we recommend a weather-resistant and durable PVC template.

### → When ordering, please remember:

For Top Clean mats for entrance areas, always indicate the profile length and the direction of traffic (see fax order form on page 97).

### → Drainage:

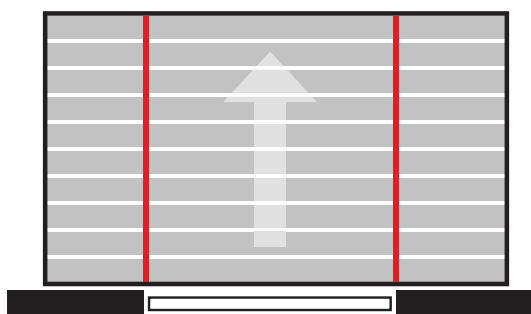
When installing angle frames or wells in outdoor areas, drainage should be provided so that water can drain away (e.g. by making an opening in the screed), or the mat well should be connected to the drainage system.

### → Multi-part mats:

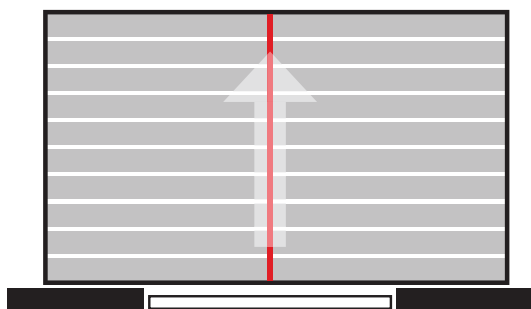
For large-size entrance areas, mats with a profile length of more than 300 cm and/or a weight of more than 50 kg should be divided, as they will otherwise be too bulky or too heavy for installation and maintenance.

### 1. Dividing in the profile length

correct



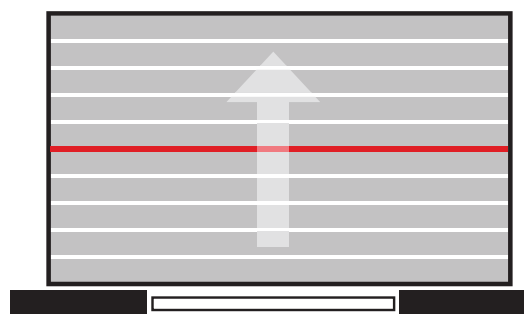
wrong



The main walking zones should not be divided in bar length.

### 2. Dividing in the walking direction

correct



Not recommended in porches.  
No division can be seen following installation.



## Connectors for multi-part mats

When installing multi-part mats, single segments are connected via high-quality V2A steel sheet connectors. Our premium-class entrance mats are easy to install or dismantle thanks to this simple, proven connection method that prevents rifts between the mat parts.

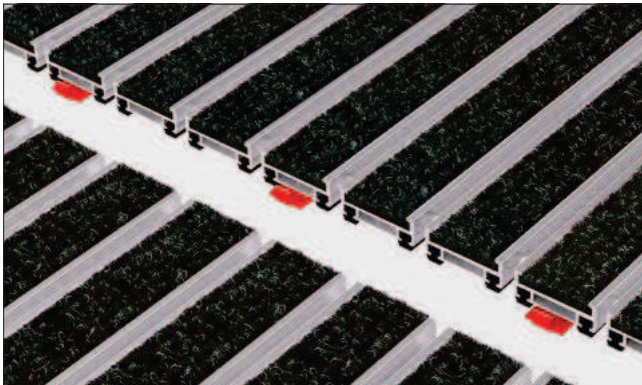
In contrast to our competition, we do not just enclose connectors and have our customers install them, but pre-install connectors at our production site.

When mats are divided in profile length, connectors are fixated in a number of spots along the parting line hooked into fitting holes on the opposite side when installing the mat. This pre-installation ensures that all aluminium profiles are aligned with each other and do not shift. When walking on the mats, division lines are hardly recognizable.

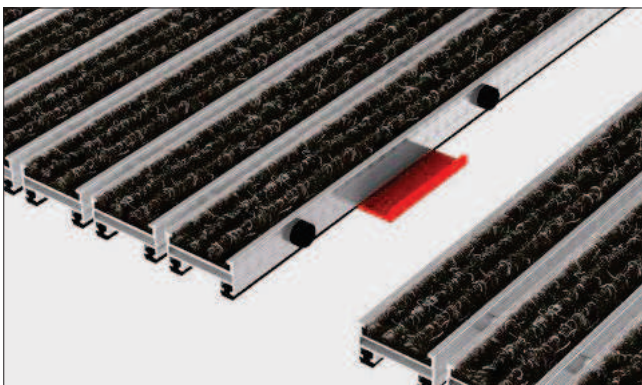
When mats are divided in walking direction, the aluminium profiles may be hooked into the connectors installed opposite. Black spacers ensure correct interspace between profiles. The division lines of mats divided in walking direction are virtually invisible when walking on the mats. Thanks to our high-quality connection method, even large-size entrance mats appear to be of one piece!

**Connectors are permanently fixed, not enclosed uninstalled.**

connectors for profile length



connectors for walking direction



## What Is Important when Installing Aluminium Profile Mats?

The standard expansion tolerance of our matting systems is 2.0 to 2.5 mm on all four sides; i.e. 4-5 mm are deducted from the internal frame dimension to the finished mat dimension in both directions (walking direction and profile length).

**Aluminium profiles may expand when exposed to heat. With large-size mats, the standard tolerance might be too small. When exposed to intense solar radiation, the mat might buckle in the frame or even warp where parts are connected if sufficient tolerance in the profile length is not provided.**

When installing large mats, please provide additional tolerance in the profile length according to the following table:

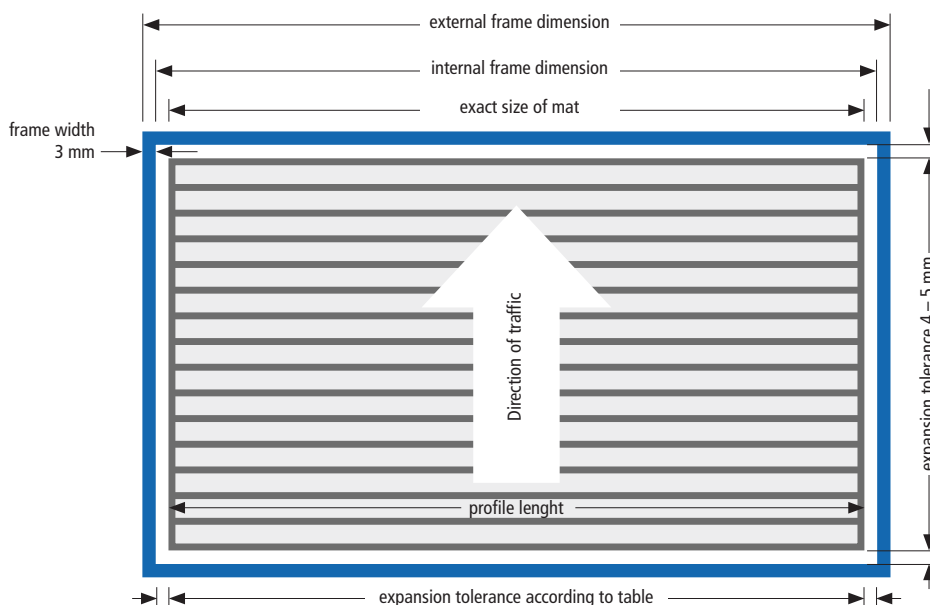
Profile length (Overall thickness, also valid for multi-part mats)	Tolerance in the profile length (Tolerance in walking direction remains 4 – 5 mm)
up to 6 m	4 mm – 5 mm
over 6 m - 10 m	6 mm – 7 mm
over 10 m	8 mm – 10 mm

If you submit frame dimensions only when ordering a matting system (frame and mat), we will calculate the required expansion tolerance according to the above table for you. The width of the frame will be added.

### Example: Matting system, external frame dimension 8 m profile length

external frame dimension	8.000 mm
minus frame width	- 6 mm
minus tolerance 6 – 7 mm	- 7 mm
<b>mat profile length</b>	<b>7.987 mm</b>

**Please note: When ordering a standard matting system (finished sizes), the purchaser is responsible for allowing sufficient expansion tolerance.**





## Custom-Fit Templates for Special Mat Shapes

When ordering special designs with cut-outs, diagonal or curved shapes, templates might be required to manufacture the matting solution precisely according to your preferences. The most suitable material for producing templates accurately is rigid PVC sheeting. This weather-resistant material has a very high dimensional stability and is the best prerequisite for an exact fit of the mat. Please ensure that templates are rolled for transport, and never folded.

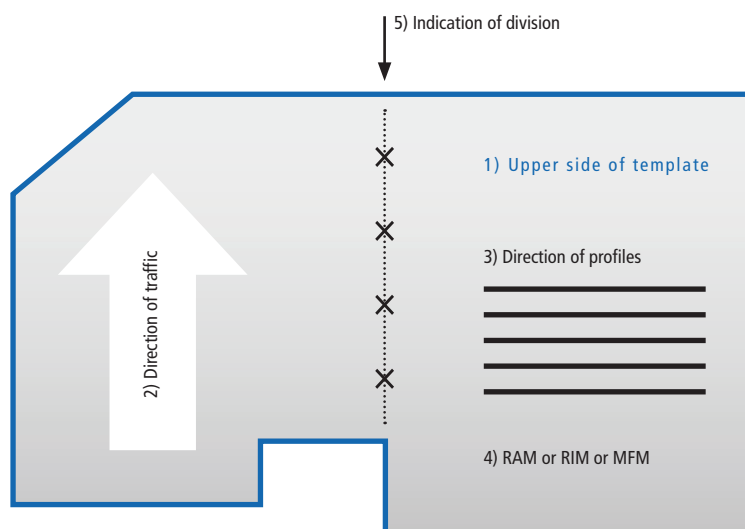
How to make a perfect template:

- Select a material that is dimensionally stable. The most suitable material is rigid PVC sheeting.
- The cut edges should be neatly finished.
- Do not indicate any additional measurements on the template.
- If a template turns out to be too small, you can simply enlarge it with parts cut to size by affixing them with adhesive tape.

### Please label the template as follows:

Please do label the upper surface and indicate the direction of traffic, the direction of the profiles and the dimensions. For multi-part mats, the division should also be indicated.

- 1) Label the upper side with "up".
- 2) Indicate the direction of traffic with an arrow.
- 3) Indicate the direction of the profiles.
- 4) Indicate the measurements as follows: external frame size = RAM  
internal frame size = RIM  
exact size of mat = MFM
- 5) Indicate divisions for multi-part mats – do not join sections together here.























## RIBBED CARPET COLOURS

						
010 Anthracite 1) Heavy Duty Ribbed Carpet 2)	020 Light Grey 1) Heavy Duty Ribbed Carpet	030 Mottled Beige 1) Heavy Duty Ribbed Carpet	040 Mottled Blue 1) Heavy Duty Ribbed Carpet	050 Green Heavy Duty Ribbed Carpet	060 Blue Heavy Duty Ribbed Carpet	070 Red 1) Heavy Duty Ribbed Carpet
						
080 Sand Heavy Duty Ribbed Carpet	090 Brown Heavy Duty Ribbed Carpet	100 Blue-Grey Heavy Duty Ribbed Carpet	110 Mauve Heavy Duty Ribbed Carpet	120 Blue-Violet Heavy Duty Ribbed Carpet	130 Black Heavy Duty Ribbed Carpet	140 Anthracite Heavy Duty Ribbed Carpet

- 1) For 10 mm mats with a fine ribbed structure  
2) Also available as needle punch (100 % polyamide) on request

Due to technical limitations colours are only approximate.

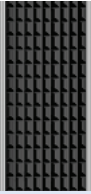
## RIBBED CARPET PROPERTIES

 Total height: up to 11 mm	 Application fields (DIN 66095): extreme	 Slip resistant characteristics R11 to DIN 51130
 Total weight: up to 3,000 g/m²	 Rollable	 Low-emission to RAL-ZU 128
 Fibre: 100% Polypropylen	 Heat conductive	 Anti-Static < 2 kV
 Material design: Cut-loop	 Sound absorbing	 Colour fastness against light ISO 105 B02: good 6
 Pile weight: up to 1,700 g/m²	 Fire rating to DIN EN 13501-1 (on request)	 Colour fastness against friction ISO 105 X12: good
 Backing: SBR-Latex impregnation	 Suitable für wheel chairs	 Colour fastness against water ISO 105 E01: good 5
 Suitable for heavy traffic	 Suitable for chair castor to DIN 54324	

Technical changes and errors excepting.



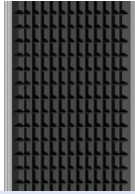
## GROOVED RUBBER



Grooved Rubber Black

fire behavior:

Height 10 and 17 mm = Bfl-s1 conforming  
DIN EN 13501-1 (German Industrial Standard)  
Height 22 and 27 mm = Cfl-s1 conforming  
DIN EN 13501-1 (German Industrial Standard)



Grooved Rubber Black, 22 mm XL

fire behavior:

Height 22 and 27 mm = Cfl-s1 conforming  
DIN EN 13501-1 (German Industrial Standard)

## CASSETTE BRUSHES



Cassette Brush Black  
3 brushes in row  
22 and 27 mm  
slip-resistant R13  
conforming DIN 51130  
(Bfl-s1 on request)



Cassette Brush Grey  
3 brushes in row  
22 and 27 mm  
slip-resistant R13  
conforming DIN 51130



Cassette Brush Black  
4 brushes in row  
22 and 27 mm  
slip-resistant R13  
conforming DIN 51130  
(Bfl-s1 on request)



Cassette Brush Grey  
4 brushes in row  
22 and 27 mm  
slip-resistant R13  
conforming DIN 51130



Cassette Brush Black  
22 mm XL  
4 brushes in row  
22 and 27 mm  
slip-resistant R13  
conforming DIN 51130

## BRUSH STRIPS



Brush Strip Black  
(Bfl-s1 on request)



Brush Strip Grey



Brush Strip Blue

Due to technical limitations colours are only approximate.





