



Load securing

marotech load securing systems are a reliable partner in vehicle construction, craft, trade, industrial, municipal and logistics applications. We are happy to assist you with any questions on load securing solutions, even providing specific information tailored to your situation.

Load securing: Here are the conditions created to secure your goods through individual solutions against all types of transport damage. We'll show you all the options at your disposal to ensure that your goods are effectively protected against all transport stresses. In addition, your goods must be safe for transport, i.e. all hazards to people and the environment must be excluded during transport. Our knowledge and products give you these securities.

Retaining value through knowledge: We can help to ensure that your employees possess the skills and knowledge they need to introduce and apply value retention measures. Our training courses provide you with the knowledge you need to achieve optimum conservation of value in practical seminars.

Anti-slip mats / -pads / -rollers / On-roll material / Floor covering

Anti-slip material available in standard sizes and cut to required dimensions.

Our anti-slip mats and coverings work by increasing the co-efficient of friction, providing a cost-effective solution to prevent damage and injury to persons and goods. They are manufactured in line with the latest scientific developments and practical experience to deliver optimum co-efficient of friction and adhesion values. Depending on the application, pressure, material thickness, material dimensions and friction surfaces, our products achieve a co-efficient of friction between $\mu=0.70^*$ and $\mu=0.90^*$. Furthermore, thanks to the high proportion of binding agents used, our anti-slip mats boast a high safety margin.



1 MT "Premium" anti-slip floor covering

Thickness	Width	Article no.
3 mm	1,250 mm	245-530125003
3 mm	1,600 mm	245-530160003
4 mm	1,600 mm	245-070160004
5 mm	1,250 mm	245-310125005
5 mm	1,600 mm	245-310160005
6 mm	1,250 mm	305-851613704
6 mm	1,500 mm	305-851613702
8 mm	800 mm	245-190160008
8 mm	1,200 mm	245-200120008
8 mm	1,250 mm	245-200125008
8 mm	1,600 mm	245-200160008
10 mm	1,250 mm	245-160125010
10 mm	1,500 mm	305-851013702

- Anti-slip mats with optimum co-efficient of friction for multiple uses
- Compressive strength: approx. 3.00 N/mm²* (equivalent to 300 t/m²), co-efficient of friction: $\mu = 0.80^*$
- We can produce mats to the exact dimensions you require from our on-roll material, to widths of up to 1,600 mm

2 MT 2000 coloured anti-slip floor covering

Thickness	Width	Article no.
3 mm	1,600 mm	245-530160003 coloured
6 mm	1,600 mm	245-265160006 coloured
8 mm	1,600 mm	245-200160008 coloured

- Available in thicknesses of 3, 6 and 8 mm
- Does not leave black marks on the loaded goods
- Compressive strength: approx. 3.00 N/mm²* (equivalent to 300 t/m²), co-efficient of friction: $\mu = 0.80^*$
- We can produce mats to the exact dimensions you require from our on-roll material, to widths of up to 1,600 mm



i Important information

Based on the requirements of VDI guideline 2700 ff, sheet 15, anti-slip mats with voids may only be compressed up to 30% of their material thickness. You'll be well within the safety margin with marotech anti-slip mats. The compressive strength of our standard material is exceptionally high, at approx. 3.00 N/mm² (equivalent to 300 t/m²). Our "MT Premium" option boasts a compressive strength almost three times greater than that of cheaper alternative anti-slip mats. This is a particularly important



3 MT "Premium" anti-slip on roll material

- Compressive strength: approx. 3.00 N/mm²* (equivalent to 300 t/m²)
- Made from PU-bonded rubber granulate
- For machines, pallets and other heavy goods
- Also suitable for heavy loads and uneven vehicle surfaces

Dimensions (L x W x H)	Co-efficient of friction μ =	Article no.
5,000 x 125 x 4 mm	0.70*	205-13702266
5,000 x 250 x 4 mm	0.70*	205-13702268
5,000 x 125 x 8 mm	0.80*	205-13702246
5,000 x 250 x 8 mm	0.80*	205-13702241
5,000 x 500 x 8 mm	0.80*	205-13702247
13,600 x 150 x 3 mm	0.80*	205-13702242
20,000 x 100 x 3 mm	0.70*	205-13702248
20,000 x 150 x 3 mm	0.70*	205-13702243



4 MT "Premium" anti-slip pad

Dimensions (L x W x H)	Packaging units	Co-efficient of friction μ =	Article no.
100 x 100 x 8 mm	200 pcs	0.70*	205-13702258500
180 x 125 x 8 mm	100 pcs	0.77*	205-13702254100
200 x 100 x 8 mm	100 pcs	0.77*	205-13702253100
200 x 200 x 8 mm	50 pcs	0.77*	205-1370225550
240 x 80 x 5 mm	150 pcs	0.70*	205-13702240100
250 x 125 x 8 mm	100 pcs	0.77*	205-13725012508
300 x 200 x 8 mm	30 pcs	0.77*	205-1373002000830

- Compressive strength: approx. 3.00 N/mm²* (equivalent to 300 t/m²)
- Made from PU-bonded rubber granulate
- Ideal for use as an intermediate layer



5 MT "Premium" anti-slip mat, 1,200 x 800 mm

Dimensions (L x W x H)	Co-efficient of friction μ =	Article no.
1,200 x 800 x 3 mm	0.80*	205-13702245
1,200 x 800 x 5 mm	0.80*	205-58413235
1,200 x 800 x 8 mm	0.80*	205-137120080008

- Compressive strength: approx. 3.00 N/mm²* (equivalent to 300 t/m²)
- Made from PU-bonded rubber granulate
- Full-area covering and intermediate layer for pallets and other heavy goods

i Important information

* = Tested in accordance with VDI guidelines 2700 ff wooden Euro pallets and used non-slip flooring as friction surfaces (in dry conditions). Depending on the quality, we have further test certificates with the friction partners box pallet or paper roll / used screen printing floor. Non-tested friction surfaces or smaller dimensions may exhibit lower values and should be tested with the original freight. If in doubt, the lowest measured value (minimum value) for a test series should be assumed. Under no



1 MT "Premium" anti-slip mat, 10,000 x 1,250 mm

Dimensions (L x W x H)	Co-efficient of friction μ =	Article no.
10,000 x 1,250 x 6 mm	0.80*	305-851613704
10,000 x 1,250 x 8 mm	0.80*	205-1371000012508

- Compressive strength: approx. 3.00 N/mm²* (equivalent to 300 t/m²)
- Made from PU-bonded rubber granulate
- Full-area covering and intermediate layer for pallets and other heavy goods



2 MT "Premium" anti-slip on roll material

Dimensions (L x W x H)	Co-efficient of friction μ =	Article no.
5,000 x 125 x 8 mm	0.70*	205-13702254
5,000 x 250 x 8 mm	0.70*	205-13702249

- Compressive strength: approx. 2.50 N/mm²* (equivalent to 250 t/m²)
- Made from PU-bonded rubber granulate
- Suitable for medium-weight pallets and uneven vehicle surfaces



3 MT "Classic" anti-slip pad

Dimensions (L x W x H)	Packaging units	Co-efficient of friction μ =	Article no.
100 x 100 x 8 mm	200 pcs	0.70*	205-13702260200
200 x 100 x 8 mm	100 pcs	0.70*	205-13720010008100
300 x 200 x 8 mm	30 pcs	0.70*	205-13730020008302

- Compressive strength: approx. 2.50 N/mm²* (equivalent to 250 t/m²)
- Made from PU-bonded rubber granulate
- Ideal for use as an intermediate layer

i Important information

* = Tested in accordance with VDI guidelines 2700 ff wooden Euro pallets and used non-slip flooring as friction surfaces (in dry conditions). Depending on the quality, we have further test certificates with the friction partners box pallet or paper roll / used screen printing floor. Non-tested friction surfaces or smaller dimensions may

**4 MT "Premium" perforated anti-slip mat**

Thickness	Width	Article no.
10 mm	600 mm	505-832900718

- 600 mm wide on-roll material
- 10 mm thick, hole \varnothing : 10 mm, hole distance: 50 mm
- Made from PU-bonded rubber granulate
- Ideal covering for wet areas or open mesh flooring, as elastic and water-permeable
- We can produce mats to the exact dimensions you require from our on-roll material with a width of 600 mm

**5 Textured rubber covering
MT flat textured mat, black**

- On-roll material, 10,000 x 1,400 x 4 mm
- Raised element \varnothing : approx. 22 mm, raised element height: approx. 1 mm
- Tested as an anti-slip covering with a co-efficient of friction of $\mu = 0.75^1$
- Made from vulcanised new rubber, 70° \pm 5° Shore A
- Long-lasting and versatile

Article no. 305-620016141

**6 Anti-slip mat
Heavy duty V1000**

- Compressive strength: approx. 7.50 N/mm²* (equivalent to 750 t/m²), co-efficient of friction tested on used non-slip flooring with anti-slip pads 200 x 100 x 10 mm: Wooden Euro pallets $\mu = 0.80^*$, mesh transport boxes $\mu = 0.75^*$
- Made from PU-bonded rubber granulate
- particularly highly compressed
- Long life, developed especially for heavy-duty transport applications

Dimensions (L x W x H): 1,200 x 800 x 10 mm

Article no. 205-86116120010

Dimensions (L x W x H): 200 x 100 x 10 mm

Article no. 205-86116120011

**7 Anti-slip mat
MT Supergrip**

- Dimensions (L x W x H): 1,200 x 800 x 13 (\pm 1) mm
- With 3 mm thick wear protection layer and bonded rubber granulate underside
- Compressive strength: approx. 15.00 N/mm²* (equivalent to 1,500 t/m²), co-efficient of friction: Dependent on application and pressure load, $\mu = 0.70$ to 0.90*
- Long life, developed especially for heavy-duty transport applications
- Combination of excellent adhesion and high load bearing capacity

Article no. 205-85100120013

**8 Anti-slip mat
MT Flex, grey**

- Dimensions (W x H): 1,550 x 1.5 (\pm 0.3) mm
- With latex coating and exceptional co-efficient of friction values
- Leaves no coloured marks on your goods (non-staining)
- Ideal for use in applications requiring a high co-efficient of friction ($\mu = 2.75$ in lab test, values must be tested on original goods) and low weight (e.g. planes, hazardous goods transport)

Article no. 205-137155015

i Regulations

According to VDI guideline 2700 ff., slip-resistant materials must be tested by independent institutes. marotech provides these tests with comprehensive test certificates so that you as the user can present them to the police and FOPH during inspections.

i Important information

* = Tested in accordance with VDI guidelines 2700 ff. wooden Euro pallets and used non-slip flooring as friction surfaces (in dry conditions). Depending on the quality, we have further test certificates with the friction partners box pallet or paper roll / used screen printing floor. Non-tested friction surfaces or smaller dimensions may exhibit lower values and should be tested with the original freight. If in doubt, the lowest measured value (minimum value) for a test series should be assumed. Under no circumstances should a calculated co-efficient of friction of $\mu > 0.60$ be used. **Please contact us!**

Benefits of the MT "Secure" anti-slip covering:



- ✓ Long durability, polyurethane
- ✓ Short loading times mean cost savings
- ✓ Replaces costly anti-slip floor coatings with longer downtime of the transport vehicles.
- ✓ Can be cut to size over large areas or before installation and easily glued to truck wooden floors, phenolic resin screen printing plates, steel or aluminium floors.
- ✓ Low wear with high slip resistance
- ✓ Suitable as a permanent RHM replacement
- ✓ Despite the high coefficients of sliding friction, the rolling resistance of a lift truck or forklift truck on MT "Secure" is no higher than on a screen-printed floor.



Cost reduction through
Fewer tension belts



Less complications
during traffic checks

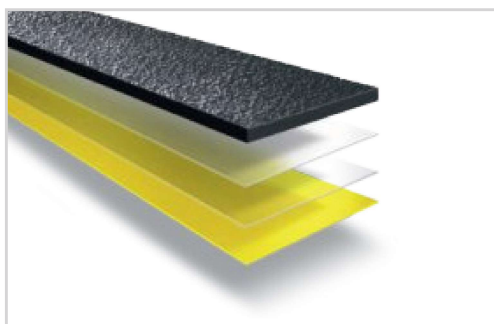


Tested by Dekra &
3G Competence Centre

i Important information

Dekra-tested quality according to VDI 2700, sheet 14 and slip resistance tested according to DIN 51130. Sliding friction coefficient even in the wet conditions of $\mu = 0.60$

Load securing

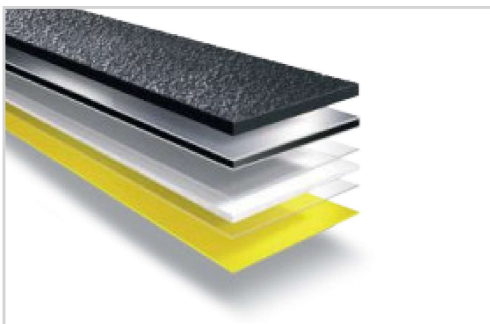


1 MT "Secure" anti-slip mat

- self-adhesive polyurethane anti-slip coating with slightly structured surface
- Suitable for vans with open loading area or open trailers. But also a relocation in the van, delivery / distribution vehicle
- suitable for vehicle floors from vans to trucks
- high wear resistance, cost-effective and durable
- enormous time savings during installation, easy and quick to install, transport vehicles are immediately ready for use again.
- resistant to de-icing salts, diesel and automotive oils
- high wear resistance, cost-effective and durable
- suitable for permanent anti-slip mat replacement
- no more complex installation of conventional anti-slip mats
- high coefficients of sliding friction with the friction partners box pallet cage ($\mu = 0.80$) and wooden pallets ($\mu = 0.90$), dry and broom-clean

Dimensions (L x W x H)

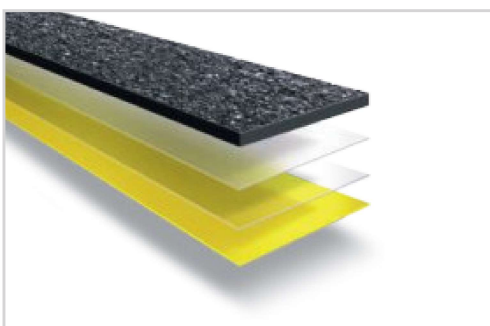
Article no.



2 MT "Secure Plus" anti-slip mats

- self-adhesive polyurethane anti-slip coating with LaSi-Alu composite panel and slightly structured surface
- The perfect load securing floor as initial equipment for the renovation of existing load floors. Suitable for small vans, delivery/distribution vehicles, truck floors and closed small trailers.
- resistant to de-icing salts, diesel and automotive oils
- suitable for permanent anti-slip mat replacement
- no more complex installation of conventional anti-slip mats
- high coefficients of sliding friction with the friction partners box pallet cage (μ 0.80) and wooden pallets (μ = 0.90), dry and broom-clean

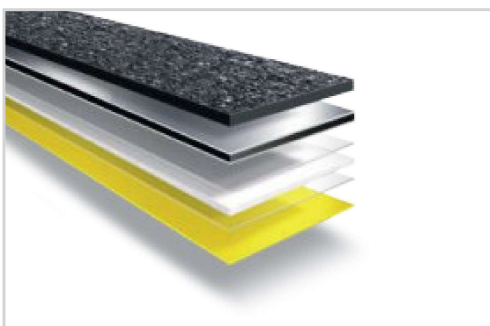
Dimensions (L x W x H)	Article no.
2,500 x 1,250 x 2 mm	205-277005



3 MT "Secure OP" anti-slip mat

- self-adhesive polyurethane anti-slip coating with granulate surface
- Suitable for vans with open loading area or open trailers. But also a relocation in the van, delivery / distribution vehicle
- The newly developed hard grain surface is also suitable for use in vans with an open loading area or open trailers.
- high wear resistance, cost-effective and durable
- enormous time savings during installation, easy and quick to install, transport vehicles are immediately ready for use again.
- suitable for permanent anti-slip mat replacement
- no more complex installation of conventional anti-slip mats
- high coefficients of sliding friction with the friction partners box pallet cage (μ 0.80) and wooden pallets (μ = 0.90), dry and broom-clean

Dimensions (L x W x H)	Article no.
2,500 x 1,250 x 2 mm	205-277003
2,500 x 1,250 x 3 mm	205-277004



4 MT "Secure OP Plus" anti-slip mats

- self-adhesive polyurethane anti-slip coating with LaSi-Alu composite panel and hard-grain surface
- The perfect load securing floor as initial equipment for the renovation of existing load floors. Suitable for small vans, delivery/distribution vehicles, truck floors and closed small trailers.
- The newly developed hard grain surface is also suitable for use in vans with an open loading area or open trailer.
- resistant to de-icing salts, diesel and automotive oils
- suitable for permanent anti-slip mat replacement
- no more complex installation of conventional anti-slip mats
- high coefficients of sliding friction with the friction partners box pallet cage (μ 0.80) and wooden pallets (μ = 0.90), dry and broom-clean

Dimensions (L x W x H)	Article no.
2,500 x 1,250 x 3 mm	205-277006





1 Chequered plate mat, black

Dimensions (L x W x H)	Article no.
10,000 x 1,500 x 3 mm	305-875110521ROL

- Tested as an anti-slip covering with a co-efficient of friction of $\mu = 0.70^*$, Fraunhofer test result
- Elastic, anti-slip chequered plate structure
- Made from vulcanised new rubber, $70^\circ \pm 5^\circ$ Shore A
- Ideal for use as a permanent anti-slip mat in vehicle construction, in loading areas or in load securing applications



2 MT ConsMa anti-slip mat for tracked vehicles such as construction vehicles and tanks

Dimensions (L x W x H)	Article no.
1,200 x 800 x 24 mm	205-85100120016

- Dimensions (L x W x H): approx. 1,200 x 800 x 24 mm
- Compressive strength: approx. 7.50 N/mm²* (equivalent to 750 t/m²)
- In accordance with the requirements of VDI guideline 2700 ff., tested as a floor covering with used excavator chain links only, co-efficient of friction values* as follows:
 - DRY in running direction of chain: $\mu = 0.64$
 - DRY across running direction of chain: $\mu = 0.62$
 - WET in running direction of chain: $\mu = 0.51$
 - WET across running direction of chain: $\mu = 0.40$
- Made from PU-bonded rubber granulate
- Long life, developed especially for tracked and construction vehicles
- In continuous testing with construction machines up to 85 t in weight, the product required replacement after three years
- Combination of excellent adhesion and high load bearing capacity

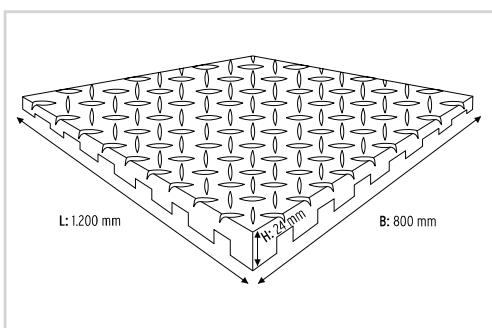


Image may differ.



3 Mesh anti-slip mat

Width	Length	Article no.
400 mm	10.0 metres	205-110467015
500 mm	10.0 metres	205-110467016
600 mm	10.0 metres	205-110467017
800 mm	10.0 metres	205-110467020
1,000 mm	10.0 metres	205-110467018
1,200 mm	10.0 metres	205-110467014
1,800 mm	10.0 metres	205-110467019
2,400 mm	10.0 metres	205-110467021

- Efficient solution for all areas of production, storage and logistics that require space to be used effectively, and where weight and time are of the essence
- 1.3 mm thick: ideal as a lining for drawers, shelves, paternoster lifts and storage sections in large shelving units
- Co-efficient of friction $\mu = 0.60$
- Free from cadmium, lead and other heavy metals (can be disposed of with normal domestic waste)
- Easy to cut to size using scissors or a knife
- Protects fragile products against slipping
- Can be used as an anti-slip intermediate layer for glass, wood, aluminium and plastic sheets