### REGUPOL ANTI-SLIP MATS

Our anti-slip mats for medium, light and heavy weights, for sensitive loads and extreme conditions.



# LOAD SECURING KEEP IT SAFE, WITH REGUPOL.

#### **Applications**

| For most types of general cargo                          |      |
|--|------|
| For sensitive loads                                      |      |
| For heavy loads  |      |
| For extreme weather conditions                           | Ρ6   |
| REGUPOL anti-slip mats                                   |      |
| REGUPOL cargo mat 7210 <sup>®</sup>                      | Р8   |
| REGUPOL cargo mat 9510 <sup>®</sup>                      |      |
| REGUPOL cargo mat 1000 <sup>®</sup>                      | P 12 |
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# REGUPOL SAFE, WHEN IT REALLY MATTERS:

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#### We keep you cargo "grounded".

**REGUPOL anti-slip mats** make a significant contribution to ensuring your cargo stays where it belongs, regardless of how far it needs to travel. That's because over 30 years' experience in product development and application research have culminated in anti-slip mats that can rightly be described as the foundation for secure loads:

**REGUPOL anti-slip mats** are the major factor in all load securing calculations for any cargo. Their reliable kinetic friction coefficient decisively reduces the need for other securing equipment. This is often what makes economical load securing possible at all.

Our anti-slip mats secure all cargos and, in particular, sensitive and heavy loads – regardless of the weather conditions! Our **REGUPOL anti-slip mats** have long been so optimised and specialised that using them is just like buying additional cargo insurance.

Driving on the safe side. Stay REGUPOL safe.

#### Middle, light heavy and heavyweight: **REGUPOL Power**



Anti-slip mats must allow no more than 30% compression under their weight loads. In many cases, this is often overlooked in transportation. Even a middleweight champion has no business fighting in the heavyweight class, so make sure you pay attention to this! That's why we've divided our **REGUPOL anti-slip mats** into three weight classes, according to their maximum permissible load.

#### Middleweight

**REGUPOL cargo mat 7210**<sup>®</sup> maximum load of up to 250 t/m<sup>2</sup> = 2.50 N/mm<sup>2</sup>, 8 mm thickness\* [page 8]

#### Light heavyweight

**REGUPOL cargo mat 9510**<sup>®</sup> maximum load of up to 630 t/m<sup>2</sup> = 6.30 N/mm<sup>2</sup>, 8 mm thickness\* **[page 10]** 

#### Heavyweight

**REGUPOL cargo mat 1000**<sup>®</sup> maximum load of up to 630 t/m<sup>2</sup> = 6.30 N/mm<sup>2</sup>, 8 mm thickness\* [page 12]

### For sensitive loads: With great restraint



Our special anti-slip **REGUPOL cargo mat 9510**<sup>®</sup> doesn't only restrain the load when it's in danger of slipping. It also restrains itself, so that it leaves no unwanted traces when after coming into contact with the load: no black streaks which may optically impair sensitive surfaces. However, always ensure that the mats used are as good as new and are free from dirt and other contamination.

#### Light heavyweight

**REGUPOL cargo mat 9510**<sup>®</sup> maximum load of up to 350 t/m<sup>2</sup> = 3.50 N/mm<sup>2</sup>, 8 mm thickness\* [page 10]

\* Based on DIN EN ISO 3386-2. Test sample size 60 x 60 mm

### For heavy loads: **Safe and reliable**



For most elastic materials, a weight load of 630 tons per square metre is a very unreasonable demand. But not for our **REGUPOL cargo mat 1000**<sup>®</sup>. Heavy loads can be secured safely and reliably, without causing any inadmissible deformation of the mat that might compromise the safety of the heavy objects or materials being transported.

#### Heavyweight

**REGUPOL cargo mat 1000<sup>®</sup>** maximum load of up to 630 t/m<sup>2</sup> = 6.30 N/mm<sup>2</sup>, 8 mm thickness\* [page 12]

### For extreme conditions: **Indestructible**



Icy temperatures, snow storms and blizzards or torrential rain: When weather conditions are at their worst, our heavy-duty **REGUPOL cargo mat 1000**° is at its best! That is of vital importance, because the surface of the load bed is generally exposed to the elements during open transport. The Federal Highways Research Agency has tested our anti-slip mat under severe winter conditions. The results show that the coefficients of friction remain above 0.6  $\mu$ , at -15 °C and when the mat is soaked in road salt water. It is also resistant to heat, moisture and UV light.

#### Heavyweight

**REGUPOL cargo mat 1000<sup>®</sup>** maximum load of up to 630 t/m<sup>2</sup> = 6.30 N/mm<sup>2</sup>, 8 mm thickness\* [page 12]

#### 7210 worldwide

**REGUPOL cargo mat 7210**° is well known and appreciated right across the globe – whether in Europe, Australia, Saudi Arabia, Russia, America or India.



### REGUPOL CARGO MAT 7210®

#### Our middleweight champion

Medium-weight cargoes are by far the most commonly transported. Our anti-slip **REGUPOL cargo mat 7210**° has been optimised for this class and is meanwhile our top seller all over the world. With a maximum permissible load of 250 t/m<sup>2</sup>, you will certainly get no less than you need – but no more either, and this gives our **REGUPOL cargo mat 7210**° an outstanding price/performance ratio, making it the reliable foundation for the great majority of your transported cargoes.

#### This is **REGUPOL** safe:

In tests conducted by the Fraunhofer Institute, our anti-slip **REGUPOL cargo mat 7210**° has achieved kinetic friction coefficients of more than 0.7  $\mu$ . According to VDI guideline 2700, part 15, 0.6  $\mu$  are usually required, which means the safety-relevant properties of our product exceed the guideline requirements. That is one of the principles of our **REGUPOL** safety.

#### The Original

Is unmistakeable. Our **REGUPOL cargo mat 7210**<sup>®</sup> has green and yellow particles, so you can always tell what you can rely on.





#### **Technical Data**

#### Material

Elastomer compound made of synthetic rubber and Polyurethane

#### Dimensions

3 – 20 mm thicknesses, widths and lengths in rolls and sheets in standard sizes or on request.

#### **Coefficient of friction**

Lab tested value 0.79  $\mu$  Adjusted value in acc. with VDI 2700 - part 14, 0.75  $\mu$  Value achieved in practice 0.6  $\mu$ 

Maximum load\* Up to 250 t/m² = 2.50 N/mm² at 8mm thickness

**Tensile strength** 0.60 N/mm² minimum

**Elongation at break** 60 % minimum

#### **Product properties**

- + Reusable, long-lasting, resilient
- + Defined load ranges, Reliable friction coefficients
- + Contamination-tolerant, easy disposal

#### Services

- + Calculation service for securing methods
- + Expertise and consulting
- + Confidence building for checks and inspections
- + Product variants
- + Your conditions
- + Support for roadside inspections

You can find an overview of our products and services from [page 18]

\* Based on DIN EN ISO 3386-2. Test sample size 60 x 60 mm



### REGUPOL CARGO MAT 9510®

#### Our middleweight champion

**REGUPOL cargo mat 9510**° is our anti-slip mat for heavier loads of up to 350 t/m². This mat will broaden your range of applications, but its most outstanding feature is that its colour doesn't rub off on most cargoes transported. So if any sensitive goods have to be transported directly on the anti-slip mat, **REGUPOL cargo mat 9510**° is the one to choose. Its bright colour makes it easy to distinguish from other **REGUPOL anti-slip mats**, ruling out any confusion in the often hectic loading process.

#### Here too, it's REGUPOL safe

And even more so than usual. In the tests by the Fraunhofer Institute **REGUPOL cargo mat 9510**° achieved the top result for sliding friction of more than  $0.9 \mu$ . Compared with the usual calculated value of  $0.6 \mu$ , that's an improvement of over 50%. So, what does this mean for you in practice? It gives you room to manoeuvre, if exceptional conditions on the load bed have a negative impact on securing the load. Because **REGUPOL** safe means having something in reserve rather than having to compromise.

#### Made-to-measure

As our **REGUPOL cargo mat 9510**° comes into direct contact with your sensitive cargo goods, you'll need sheets specially cut to size. Just say the word and we'll provide them!



#### **Technical Data**

#### Material

Elastomer compound made of synthetic rubber and Polyurethane

#### Dimensions

3 – 12 mm thicknesses, widths and lengths in rolls and sheets in standard sizes or on request.

#### **Coefficient of friction**

Lab tested value 0.97  $\mu$  Adjusted value in acc. with VDI 2700 - part 14, 0.92  $\mu$  Value achieved in practice 0.6  $\mu$ 

#### Maximum load\*

Up to 350 t/m² = 3.50 N/mm² at 8mm thickness

**Tensile strength** 0.60 N/mm² minimum

**Elongation at break** 60 % minimum

#### **Product properties**

- + Reusable, long-lasting, resilient
- + Defined load ranges, Reliable friction coefficients
- + No black discolouration
- + Contamination-tolerant, easy disposal

#### Services

- + Calculation of suitable securing methods
- + Expertise and consulting
- + Confidence building for checks and inspections
- + Product variants
- + Your conditions
- + Support for roadside inspections

You can find an overview of our products and services from [page 18]

\*Based on DIN EN ISO 3386-2. Test sample size 60 x 60 mm





### REGUPOL CARGO MAT 1000®

#### Our heavyweight champion

**REGUPOL cargo mat 1000**° does its best work where other anti-slip mats fail to achieve the required results. Even under extreme weather conditions, **REGUPOL cargo mat 1000**° still exceeds the minimum values for anti-slip mats of 0.4  $\mu$ , as contained in VDI 2700, part 15. This is the performance our heavyweight champion is capable of: fighting to ensure that heavy-loads of up to 630 t/m<sup>2</sup> are safely and reliably secured, even under the most adverse conditions.

#### Where else, if not here: REGUPOL safe

The **REGUPOL cargo mat 1000**° maintains its function where others have long since hoisted the white flag. What do we mean? We mean when heavy loads transfer high point loads to the anti-slip mat or while spray mixed with road salt soaks the loading bed at -15°C. Other anti-slip mats were also put through this test by the Federal Highways Research Agency and our **REGUPOL cargo mat 1000**° was one of the few to pass it.



#### **Technial Data**

#### Material

Elastomer compound made of synthetic rubber and Polyurethane

#### Dimensions

8 mm thickness, widths and lengths in rolls and sheets in standard sizes or on request.

#### **Coefficient of friction**

Lab tested value 0.86  $\mu$  Adjusted value in acc. with VDI 2700 - part 14, 0.82  $\mu$  Value achieved in practice 0.6  $\mu$ 

#### Maximum load\*

Up to 630 t/m² = 6.30 N/mm² at 8 mm thickness

**Tensile strength** 0.60 N/mm² minimum

**Elongation at break** 60 % minimum

#### **Product properties**

- + Reusable, long-lasting, resilient
- + Defined load ranges, Reliable friction coefficients
- + Suitable for extreme weather conditions
- + Contamination-tolerant, easy disposal

#### Services

- + Calculation of suitable securing methods
- + Expertise and consulting
- + Confidence building for checks and inspections
- + Product variants
- + Your conditions
- + Support for roadside inspections

You can find an overview of our products and services from [page 18]



### REGUPOL CARGO TOOL RHK

#### Anti-slip timber dunnage

The anti-slip timber dunnage **REGUPOL cargo tool RHK** is our simple, yet effective means of securing cargos loaded by forklifts or cranes which cannot be palletized. It has two functions:

- Firstly, as a spacer for loading and unloading by forklift or crane.
- Secondly, as an anti-slip surface for spaces between separate loads.

We have attached our **REGUPOL cargo mat 7210**° at the upper and lower edges of the timbers, so that no loose mats need to be laid beneath or on top of the timbers. This saves time and the anti-slip mats can't move out of position during loading. Our anti-slip timber dunnage has a clearly rectangular cross-section, ensuring that it won't tip over when placed on its broad side.

#### Here too: REGUPOL safe

Our **REGUPOL cargo mat 7210**<sup>®</sup> is very firmly bonded to the upper and lower edges of the timber. This anti-slip surface will not peel off, even when coming into contact with salt water or UV light. Meticulous selection of materials and processing make even simple timber dunnage **REGUPOL** safe.



#### **Technical Data**

#### Application

For use under precast concrete parts, loose pipes, pipe packages, steel girders, reinforcing steel mesh and other non-palletized cargos.

#### Material

Squared timer, elastomer compound anti-slip mat made of synthetic rubber and polyurethane, special high-strength adhesive

#### Dimensions

Timber: 2 400 x 100 x 60 mm Anti-slip mat: 2 400 x 100 x 8 mm

#### **Coefficient of friction**

Lab tested value 0.79  $\mu$  Adjusted value in acc. with VDI 2700 - part 14, 0.75  $\mu$  Value achieved in practice 0,6  $\mu$ 

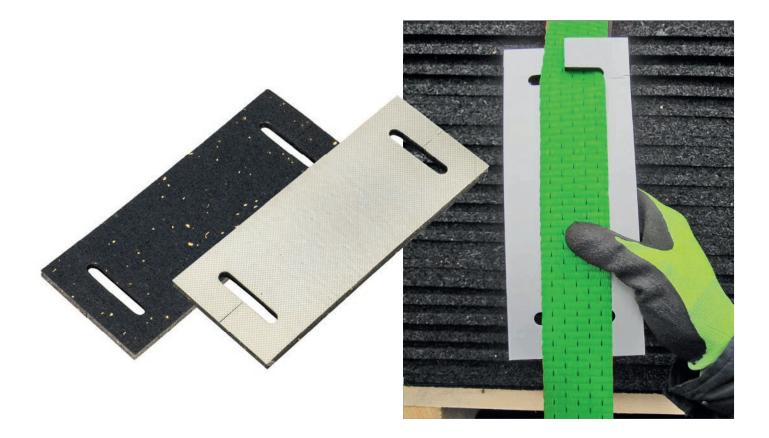
You can find an overview of our products and services from [page 18]

#### **Product properties**

- + Reusable, long-lasting, resilient
- + Defined load ranges, Reliable friction coefficients
- + Suitable for extreme weather conditions
- + Contamination-tolerant, easy disposal

#### Services

- + Calculation of suitable securing methods
- + Expertise and consulting
- + Confidence building for checks and inspections
- + Product variants
- ✤ Your conditions
- + Support for roadside inspections



### REGUPOL CARGO TOOL GBS

#### The triple-function belt webbing protector

The **REGUPOL cargo tool GBS** webbing protector has three functions in one:

- It ensures that well-functioning tension belts do not wear, fray or even break on the edges of the loads.
- The belt's flexibility enables it to adapt perfectly to the angles of the load edges, leaving no hollow space underneath the belt.
- It ensures that its smooth top surface increases the transmission value k, which is used as the basis for calculating the load securing rate of 1.8. This means that in most cases, it's not necessary to use a second ratchet on the other side of the load. However, please make sure that the edge protector is not inadvertently fitted with the upper side facing downwards and always take the relevant transfer factor into account.

#### Triple safe means REGUPOL safe

Its robust underside, smooth upper surface and its flexibility give our belt protector **REGUPOL cargo tool GBS** a triple safety bonus: It protects the tensioning belt against wear, increases and compensates tension belt force distribution, as well as adapting optimally to the load edges. The bright colour of the belt protector's top side makes it easily recognisable, even in bad light. Robust and flexible with a smooth, low-friction surface. This intelligent combination makes our belt webbing protector **REGUPOL** safe.





#### **Technical Data**

#### Application

When lashing down the load, they are placed underneath the tensioning belts over the edges of the cargo.

#### Material

#### Underside: REGUPOL cargo mat 1000® elastomer

compound anti-slip mat made of synthetic rubber and polyurethane

Top side: smooth, low-friction technical fabric made of polyester, special high-strength adhesive

#### Dimensions

250 x 100 x 8 mm

#### Calculated force transmission value

Transmission value k = 1.8 when using only one ratchet, in acc. with VDI 2700  $\,$ 

### You can find an overview of our products and services from [page 18]

#### **Product properties**

- + Reusable, long-lasting, resilient
- + Smooth, low-friction surface
- + Easy disposal

#### Services

- + Calculation of suitable securing methods
- + Expertise and consulting
- + Confidence building for checks and inspections
- ➡ Product variants
- ✤ Your conditions
- + Support for roadside inspections

#### Never use anti-slip surfaces

**Never** use edge or belt webbing protectors with anti-slip surfaces. Though this will protect the belt, it will also definitely reduce its force transmission. This could have fatal consequences.

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# MORE THAN SIMPLY ANTI-SLIP

#### Useful properties, helpful services

With our **REGUPOL FEATURES**, we improve the core benefits of our products with a range of helpful functions and additional qualities, which set them apart from other products. And with our **REGUPOL SERVICES**, we also make sure you're not left high and dry with our products after purchasing them! With our services, we will provide you with comprehensive support, important information and concrete economic benefits. Find out how you can profit from them on the following pages.

Contact our customer care consultants **directly**, no call centres, no holding loops.

+49 2751 803 138 or

anti-slip-mat@regupol.eu



### ADDITIONAL QUALITIES ECONOMICAL AND SOPHISTICATED

#### DESIGNED FOR RELIABILITY

- + Reusable
- + Resilient
- ✤ Long-lasting
- + High load capacity
- + Extremely anti-slipping

#### **DESIGNED FOR YOUR BENEFIT**

- + Suitable for extreme weather conditions
- + Non-staining
- + Contamination-tolerant
- + Easy to clean
- + Easy disposal



**Product properties** 

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### ... FIND ALL THE DETAILS HERE: WWW.REGUPOL-LOAD-SECURING.COM

# SERVICES HELPFUL AND BENEFICIAL

#### **REGUPOL CALCULATION SERVICE**

- + REGUPOL easy LaSi Software
- + REGUPOL easy LaSi Card
- + Load securing manual

#### WHAT TO DO DURING SAFETY CHECKS?

- + How to behave during safety checks
- + Accompanying documents
- + **REGUPOL** quality certificates

#### YOUR PRODUCT VARIANTS

- + Individual product development
- + Standard or bespoke dimensions

#### **EXPERTISE AND CONSULTING**

- + Personal advice on application
- + Background information
- + Training material

#### **YOUR CONDITIONS**

- + Fast delivery of in-stock goods
- + Quantity discounts for bulk buyers

#### **DEALER SERVICES**

Are you a dealer in transport equipment? Then why not inquire about our conditions and services for dealers?



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# QUALITY CERTIFICATES PLENTY OF CHOICE

In over 30 years of product development and application research and in cooperation with countless institutes, institutions and big-name logistics companies, we have developed sophisticated load securing products and have proved the effectiveness of their properties. With your safety in mind.

**REGUPOL anti-slip mats** are tested by:



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### ... KEEP IT REGUPOL SAFE.

# ALWAYS ON THE **SAFE** SIDE ...

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REG ASM EN 102023 Online Version Ocotber 2023



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