# LOADING RECOMMENDATIONS FOR STEEL

# **STEEL BARS AND PIPES**

# Requirements for vehicle and floor

The main methods used for securing cargo are positive fit, blocking, top-over lashing and direct lashing. With positive fit loading (e.g. front end wall, sideboards, etc.), the load-bearing capacity must be ensured. The front end wall should have a load rating of at least 5,000 daN. The floor must be swept clean and as dry as possible.

#### Lashing points for securing the load

Lashing points on vehicles must comply with DIN EN 12640. A sufficient number of lashing points must be available. The lashing points must be laid out in a manner that they can withstand the stress (traction force). The manufacturer's instructions must be followed.

### Lashings

The lashings must meet the requirements of DIN EN 12195, part 2. Edge protectors (such as **REGUPOL** Webbing Protectors) should be used to protect the lashings and / or the cargo from damage.





#### Displacement of the load, friction force, securing the load

The friction force counteracts any displacement of the load. It depends on the weight force of the load and on the sliding friction coefficient of the material combination. In most cases, a sliding friction coefficient of at least 0.6  $\mu$  can be achieved by using **REGUPOL Anti-Slip Mats**. Packages of steel bars, for example, can be formed with several bundles. Packages of steel bars or pipes should be secured with a positive fit to prevent them from sliding forwards. This can be done by securing them to the front end wall, spacers or a cross batten (artificial front end wall). Power absorption must be hereby taken into account.

**Important note:** The permitted payload and load distribution must be observed. The lashing should be checked during transport and tightened as needed.

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The **REGUPOL anti-slip mat** must be laid out underneath the cargo or the load unit. The size if the antislip mat much be selected to ensure there can be no direct contact between the load and the loading bed. When selecting a suitable antislip mat, attention must be paid to surface pressure, the weight of the load and the coefficient of friction (0.6µ is recommended). Overloading can cause damage and lead to the mat having to be discarded. **REGUPOL anti-slip mats** are available in range of different qualities, which are characterised, among other things, by different maximum loads. In accordance with VDI 2700, part 15, care must always be taken to ensure that at 30% deformation the antislip mat's permissible surface pressure is not exceeded. **REGUPOL Anti-Slip Mats** should be placed under and between stacked goods to prevent slippage. Squared timber are often used as spacers (e.g. during loading and unloading) when there is more than one package. A **REGUPOL anti-slip mat** should be fitted under and over the squared timber to prevent the spacers from slipping. Squared timber must have a rectangular, not squared, cross-section. **REGUPOL cargo tool RHK** Squared Timbers are already fitted with **REGUPOL Anti-Slip Mats** to prevent a key cause of accidents (fitting anti-slip mats under and over the squared timber by hand). The packages are to be lashed down in accordance with VDI 2700 guidelines.

This loading recommendation is a typical example for using **REGUPOL cargo tool RHK** Squared Timbers.





# Disclaimer

These loading recommendations for slip-resistant materials ("Anti-slip mats") have been developed with great care by **REGUPOL BSW GmbH**. Nevertheless, the recommendations contained in them are only intended as guidelines and should not be regarded as any guarantee for complete safety. It is the duty of the drivers to ensure correct load security!

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