TATA STEEL



LOAD RESTRAINT GUIDELINE AFL Sheet Packs

1. This guideline applies to:

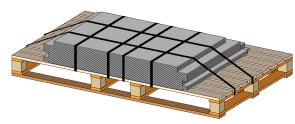
- Sheet packs generated on the Automotive Finishing Line:
 - Banded securely to wooden pallets
 - Centralised longitudinally on the pallets
 - Stacked flush to one edge of the pallets

The friction factor for this product within the pack is taken as μ =0.25, and that between wooden pallet and trailer deck is taken as μ =0.45.

2. Essential requirements

- Sheet material must be secured to the pallets with at least **6 steel bands**, tensioned to at least **175 daN**.
- All restraints must be web lashings compliant with EN 12195-2, minimum lashing capacity LC 2000 daN.
- Edge protection MUST be used on every contact point between the straps and the sheets or any other sharp edges.

3. Overview of restraint system - road transport



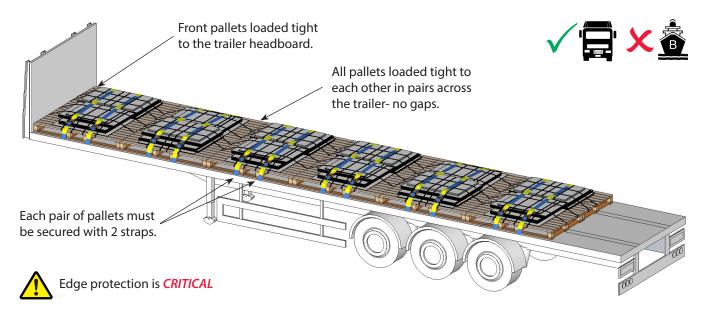
Maximum stack weight: 1.5 tonnes

LC 2000 daN minimum webbing straps: up to 14 may be required.



Edge protection: as required.

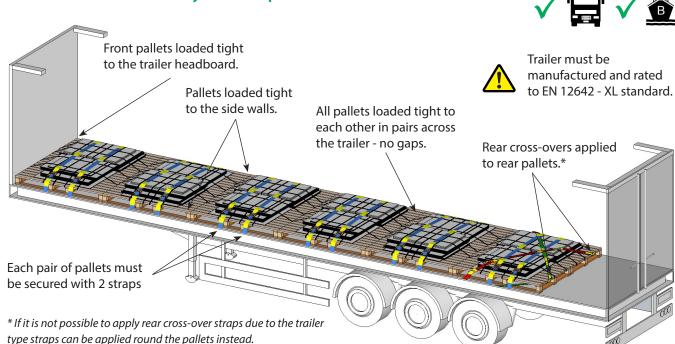




This Load Restraint Guideline has been designed and tested to meet the forces for road and sea transport as stated in EN 12195-1:2010 and VDI 2700.

LOAD RESTRAINT GUIDELINE AFL Sheet Packs

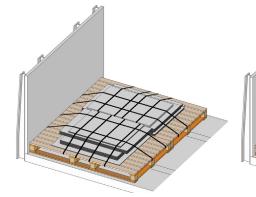
4. Overview of restraint system - export loads



5. Material stacking

There are two acceptable options for loading the pallets in pairs across the trailer.

Note: The main disadvantage of Option 2 is that the stack of sheets may move towards the centre of the trailer as the load restraint straps are tightened. The degree of movement will depend on the tension in the steel banding and the shape of the stack. If the movement is significant the lateral steel bands may become loose and they will need to be replaced.



Loading Option 1 PREFERRED OPTION:

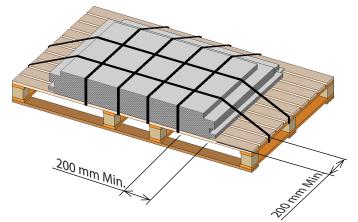
Flush faces of the sheet stacks at the centre of the trailer

Loading Option 2:

Flush faces of the sheet stacks at the outside of the trailer

6. Stack banding requirements

- ✓ Minimum of 6 steel bands per pack.
- ✓ Fit 2 longitudinal bands and 4 lateral bands.
- Fit bands near pallet cross members where possible.
- Fit bands at least 200 mm from sheet edges.
- Steel bands must be a minimum of 19 mm wide and 0.58 mm thick.
- Bands should be tensioned to 175 daN minimum.



The information and guidance contained in this document is intended for use only by Tata Steel UK Limited and its associated and subsidiary companies ("Tata Steel") in relation to its operations. All information and guidance in this document is based on Tata Steel's interpretation of prevailing legislation and best practice. Tata Steel gives no warranty or representation as to the accuracy of the information of for the guidance being for, or suitable for, a specific purpose. The information and guidance does not constitute legal or professional advice. All implied warranties and conditions are excluded, to the maximum extent permitted by law. Use of this document by any third party is at your own risk. Save to the extent that liability cannot be excluded by law, Tata Steel is in no way responsible or liable for any damage or loss whatsoever arising from the use of or reliance on the information and guidance contained in this document.