



# Interiors

by **INEXA**

Craftsmen to the world's finest ships



**TNF**

Floating Floor System

# TNF Floating Floor System

## System features

- Approved as A60 rated deck construction.
- Effective structural noise damping and sound insulation.
- High load bearing capacity with 2 mm steel surface.
- Easy and fast installation - handy sized units, fully insulated.
- Units jointed by tack welding - no additional fastening.

## System description

TNF system FS floating floor is designed for universal applications on ships and offshore installations. The TNF floor units FS7 and FS5 consists of a specially developed Rockwool insulation material surfaced by a 2 mm thick steel plate. This special insulation adds significantly to the strength of the surface (see the graphs).

Product names	TNF unit FS7	TNF unit FS5
Dimensions:		
-thickness	70 mm	50 mm
-length x width*	600 mm x 1200 mm (approx. 2 x 4 ft.)	600 mm x 1200 mm (approx. 2 x 4 ft.)
-weight	29,5 kg/m <sup>2</sup>	24,5 kg/m <sup>2</sup>
Thermal Transmittance	0,60 W/m <sup>2</sup> °C (0,10 BTU/sq.ft. °F)	0,80 W/m <sup>2</sup> °C (0,14 BTU/sq.ft. °F)
Noise Reduction, incl. Steel deck	Rw = 53 dB (S.T.C. = approx. 53 dB)	Rw = 48 dB (S.T.C. = approx. 48 dB)
Fire class	A60**	C-Class
Packing, pallets with	20 units (14,4 m <sup>2</sup> )	24 units (17,3 m <sup>2</sup> )
Total weight approx.	520 kg	550 kg

\* = 1,39 units/m<sup>2</sup> or = 0,13 units/sq.ft.

\*\* = In combination with 6 mm steel deck.

## System application

The TNF floating floor unit FS7 has been developed to meet the latest requirements for:

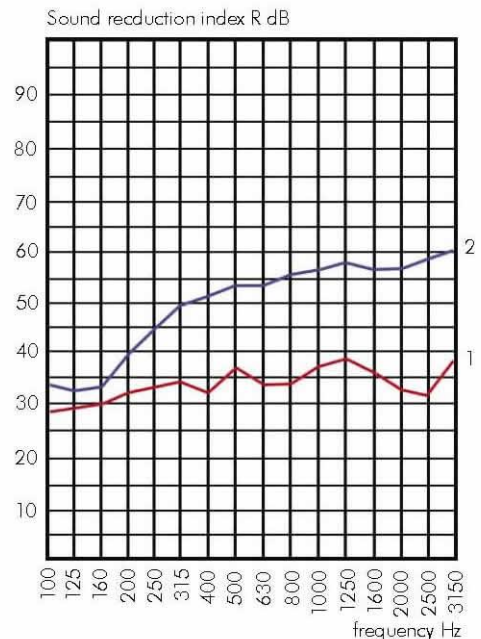
- A60 Fire insulation (A60 deck construction) and

- High noise reduction (low noise level)

The figure below shows the airborne sound insulation of

- 1) a 6 mm steel deck
- 2) the same deck with the FS7 floor unit installed.

The floating floor also serves the purpose of absorbing vibrations and sound that spread through the steel deck.



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## Installation

### Leveling of steel deck

To ensure a flat surface the steel deck may require leveling before laying the TNF floor units.

### Layout of TNF floor units

The units are laid in staggered rows. The layout of the units should start at a corner.

Due to the characteristics of the mineral wool, minor in-equalities of the deck surface may be taken up by the floor units.

### Cutting of TNF floor units

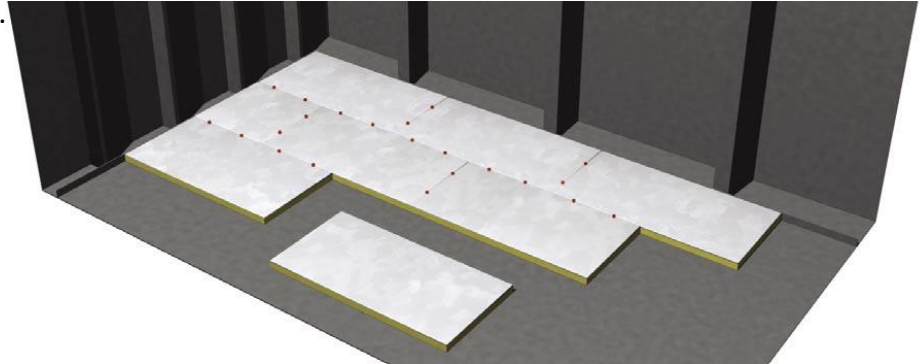
The units are easily cut by an angle grinder or similar.

### Connecting TNF floor units

The units are tack-welded together on all edges per every 300 mm.

### Finish

The joints between the units should be sealed.



### Uniform load test

The general uniform load on the floors in an accommodation of a ship can be estimated as follows:

#### Corridors:

2.5 kN/m<sup>2</sup> (52 lbs/sq.ft.)

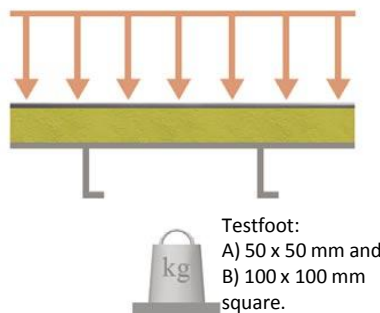
#### Cabins:

1.5 kN/m<sup>2</sup> (31 lbs/sq.ft.)

#### Public Areas:

2.5 kN/m<sup>2</sup> (52 lbs/sq.ft.)

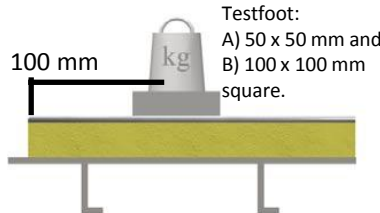
The max. uniform load (static and dynamic) on a FS7 floor should not exceed: 10 kN/m<sup>2</sup> (52 lbs/sq.ft.)



### Point load tests

This test simulates the impact from heavy furniture, etc. - on the floor in general.

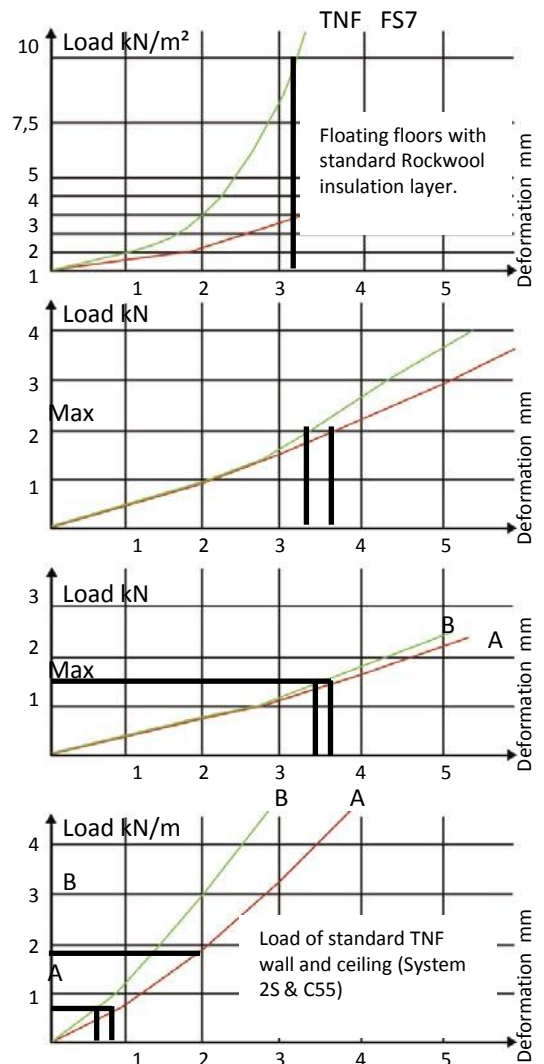
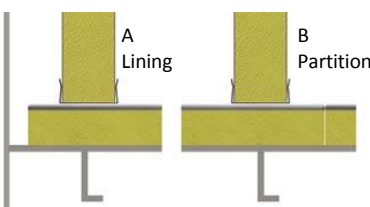
The max. recommended load is 2.0 kN (438 lbs.) - at the edge of the floor.



### Line load test

Walls inclusive items fixed to the walls, doors etc. give a line load impact on the floor.

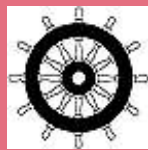
The FS7 floor is recommended for loads up to: 3 kN/m (208 lbs), which is sufficient for ordinary use aboard vessels.



TNF is the complete high quality accommodation system for all marine interiors. The TNF system includes wall and ceiling panels, doors, floors and wetunits. TNF has been leading the development in marine interiors since 1973. The world famous TNF quality is demonstrated in the environment, which can be designed to provide the ideal conditions for all functions.

# TNF

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