

#### PRESENTATION

General
 TNF Walls
 TNF Ceilings
 TNF Floors
 TNF Doors
 TNF Wetunits
 TNF Magic
 TNF Prefab Cabins







The world's leading brand in marine interiors establishes production in China



## INEXA Interiors (Nantong) Co., Ltd.

## Inexa China Management



### **INEXA CHINA MILESTONES 2009**

•Inexa Holding, Sweden, under the leadership of Chairman Karl-David Sundberg, acquires 100 % of Inexa China

•Full product range established and certified

•New ISO 9000 system and Total Quality System under training and control by DNV established

•Full implementation of Inexa JIT-5S system

•Organisation consolidated



Inexa Holding's Chairman, Karl-David Sundberg now controls 100 % of Inexa China

## INEXA TNF DENMARK MANAGEMENT





## Product Range

•TNF Wall Panels TNF Ceilings •TNF Marine Doors •TNF Inspection Hatches •TNF JIT-Cabins •TNF Wet Units •TNF Magic Wall Finishes

## FACTORY











#### DET NORSKE VERITAS

#### MANAGEMENT SYSTEM CERTIFICATE

Certificate No. 50499-2009-AQ-RGC-RvA

This is to certify that

#### INEXA Interiors (Nantong) Co., Ltd.

No. 66 Jinxing Road, Economic & Technological Development Zone, Nantong City, Jiangsu Province 226017, P.R. China

has been found to conform to the Management System Standard:

#### ISO 9001:2000

This Certificate is valid for the following product or service ranges:

#### Design, Development, Manufacture and Service of Wet Unit For Marine. Manufacture and Service of Interior Accommodation System for Marine (the Panel, Ceiling, Floating Floor and Fire Door).

Initial Certification date: April 10<sup>th</sup>, 2009

This Certificate is valid until: April 10<sup>th</sup>, 2012

The audit has been performed under the supervision of

> Zhang Guang Yu Lead Auditor



Place and date: Shanghai, April 22<sup>nd</sup>, 2009

for the Accredited Unit: DNV CERTIFICATION B.V., THE NETHERLANDS

> / Chen Yi agement Representative

Lack of fulfilment of conditions as set out in the Certification Agreement may render this Certificate invalid. Der Norsza Vierzas Certre/Arton B.V. Zwolseweg 1, 2994 LB Barendrecht, The Netherlands, TEL: +31 10 2922 688 - www.dnv.com / www.dnv.nl



 Certificate No.:
 MED-D-1201

 Item No.:
 A.1/3.11

 Job Id.:
 344.1-001491-2

#### APPENDIX, REV. NO. 0

#### QS - Certificate of Assessment - EC, Certificate no. MED-D-1201

Type designation	EC Type-Examination Certificate No.	Expiry date	QS Assess. Report dated	USCG approval number	
Marine C65 type B-15 Class ceiling and A class deck core compound structure	C65 type B-15 Class g and A class deck MED-B-5160 ompound structure		2009-07-01	164.110/EC0575/5160	
Marine 2SM type B-15 Class Bulkhead	MED-B-5161	2014-06-18	2009-07-01	164.108/EC0575/5161	
Marine 2SL type A-60 Class Bulkhead light structure			2009-07-01	164.107/EC0575/5162 164.110/EC0575/5259	
TNF Ceiling Type C55 MED-B-5259		2014-06-18	2009-07-01		
Floating Floor Type FS7	MED-B-5260	2010-05-12	2009-07-01	164.105/EC0575/5260 164.110/EC0575/5261 164.110/EC0575/5262 164.110/EC0575/5265 164.108/EC0575/5266	
Ceiling Type System C46	MED-B-5261	2014-06-18	2009-07-01		
TNF Ceiling Type C65	MED-B-5262	2014-06-18	2009-07-01		
TNF Ceiling Type C80	MED-B-5265	2014-06-18	2009-07-01 2009-07-01		
TNF B-15 Class Bulkhead Type 5SA	MED-B-5266	2012-12-21			
TNF B-0 Class Lining Panel Type 5SF	MED-B-5267	2012-12-21	2009-07-01	164.108/EC0575/5267	
TNF Ceiling Type C64	MED-B-5268	2012-12-21	2009-07-01	164.110/EC0575/5268	
TNF B-15 Class Ceiling Type C55-I	MED-B-5269	2013-02-07	2009-07-01	164.110/EC0575/5269	
TNF B-0 Class Bulkhead Type 2SF-H-I	MED-B-5270	2013-02-07	2009-07-01	164.108/EC0575/5270	
TNF B-15 Class Lining Panel Type 2SF-S	MED-B-5271	2013-02-07	2009-07-01	164.108/EC0575/5271	
TNF Ceiling Type C25	MED-B-5272	2011-05-19	2009-07-01	164.110/EC0575/5272	
TNF Ceiling Type C64	MED-B-5273	2011-05-19	2009-07-01	164.110/EC0575/5273	
TNF Bulkhead Type 2SL	MED-B-5274	2012-05-14	2009-07-01	164.108/EC0575/5274	
TNF B-15 Class Bulkhead MED-B-5275		2012-08-22	2009-07-01	164.108/EC0575/5275	
TNF B-0 Class Bulkhead Type 2SF	MED-B-5276	2012-08-22	2009-07-01	164.108/EC0575/5276	
TNF B-15 Class Bulkhead Type 2SA	MED-B-5277	2012-08-22	2009-07-01	164.108/EC0575/5277	
TNF 2S Type F, Q, M and A	MED-B-5279	2012-10-05	2009-07-01	164.108/EC0575/5279	
Marine 2SF-S-I Type B-15 Class Lining Panel	MED-B-5281	2013-07-29	2009-07-01	164.108/EC0575/5281	

Manufactured at premises of INEXA Interiors Nantong Co., Ltd., Nantong China.

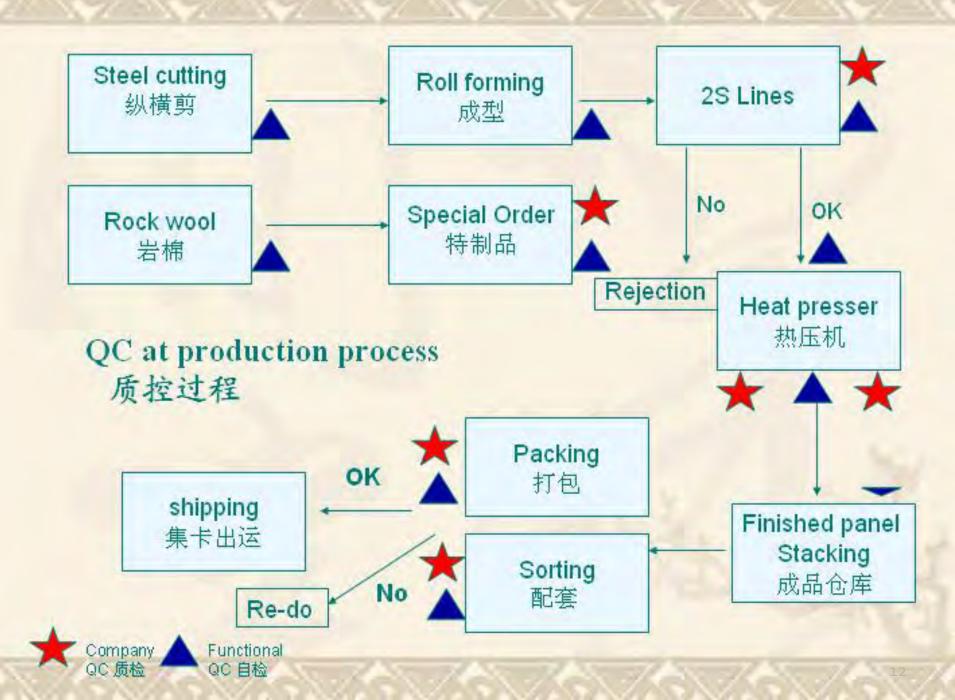
The manufacturer complies with the Council Directive 96/98/EC on Marine Equipment and is allowed to affix the Mark of Conformity followed by the DNV identification number 0575 and the two last digits of the number of the year in which the product is produced.

Example: 0 0575/09

The manufacturer shall issue a Declaration of Conformity for each product with reference to the EC Type-Examination Certificate and this QS - Certificate of Assessment - EC.

DET NORSKE VERITAS AS, Veritasveien 1, NO-1322 Høvik, Norway, Tel.: +47 67 57, 99 00, Fax: +47 67 57 99 11, Org.No. NO 945 748 931 MVA www.dnv.com Form No.: MED.Da Issue: December 2008 Page 2 of 3





Proof of improved health and safety...

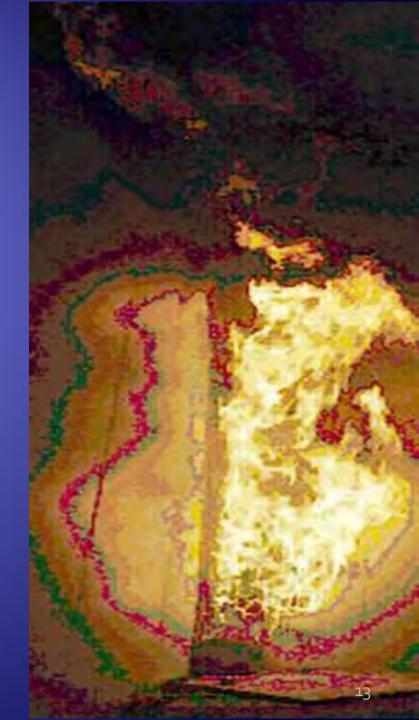
## The Fire Test

**INEXA CHINA** 

Far East Fire Testing Centre, Shanghai

#### INEXATNF

Danish Institute of Fire and Security Technology (DBI)

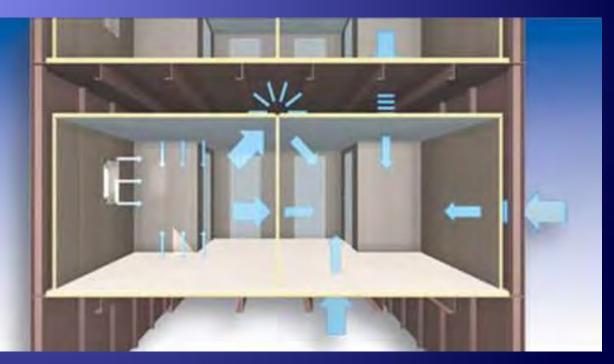


# TNF overall Work with noise reduction

Redcution technologyReduction effect

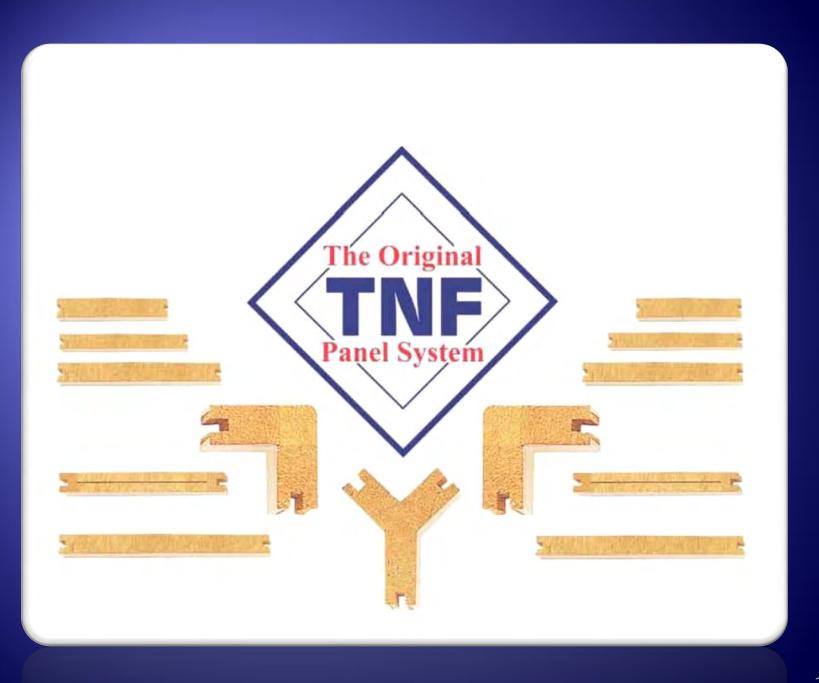
INEXA CHINA Institute of Acoustics, Tongji University

INEXA TNF Lloyds Register Odegaard & Danneskiold-Samsoe A/S



## TNF was the FIRST with...

- •TNF Modular Wall Systems
- •44 dB noise reduction panels
- •Advanced CAD interior architectural systems
- •ISO 9001 quality approval
- •Halogen free, non toxic surfaces TNF Pacific and TNF Magic
- •TNF JIT KIT Sytems
- •TNF JIT Cabins



## TNF

- the most innovative supplier of interior accommodation

#### Products

- Inventor of the brandname TNF
- Inventor of the modular system
- Inventor of the patented TNF MAGIC

#### Experience

- 35 years' global experience
- We surpass international standards
- Comprehensive JIT-philosophy

#### Company

- A global supplier of interior accommodation world wide
- Production capacity 1.500,000 m<sup>2</sup>/year

#### **Delivered to**

- more than 8,000 commercial ships
- more than 70 cruise ships
- more than 500 offshore platforms
- more than 400 navy ships

# Excellent Service Responding to your needs



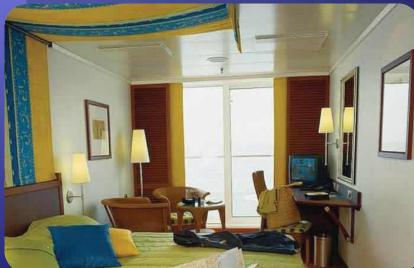
## **CRUISERS**

























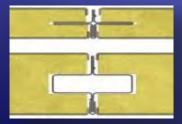
## **Product Range**

- •TNF Wall Panels
- •TNF Ceilings
- •TNF Marine Doors
- •TNF Inspection Hatches
- •TNF JIT-Cabins
- •TNF Wet Units
- •TNF Magic Wall Finishes

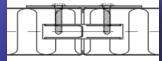
# **TNF 2S**



TNF Removable Panels



H-profile as reinforcement

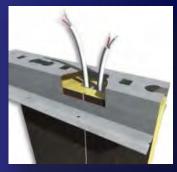




# The most versatile panel system in the market

H-profile and punched top profile







## **TNF** Panels

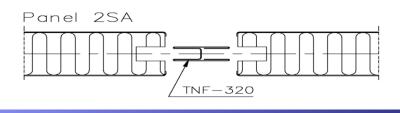


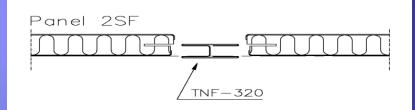
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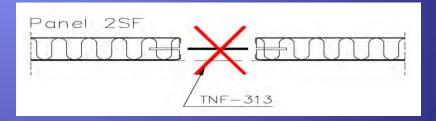
TNF Lining & Partition panel plan

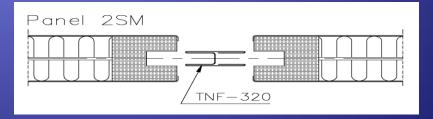
TWF Lining & Partition panel plan

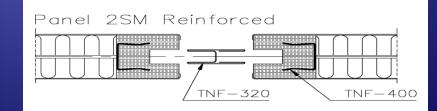
## Multiple use of H-profile



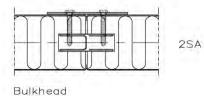


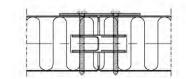




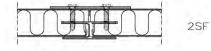


## TNF 320 as reinforcement

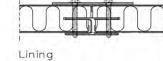


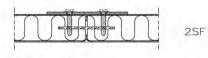


Lining

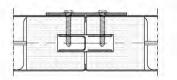


Lining

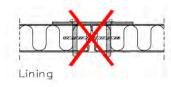


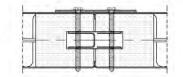




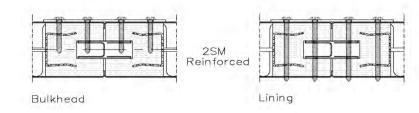


Bulkhead



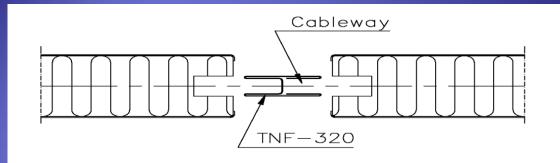


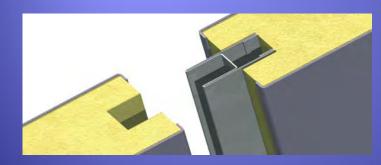
Lining

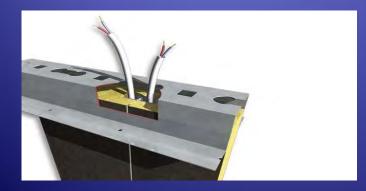


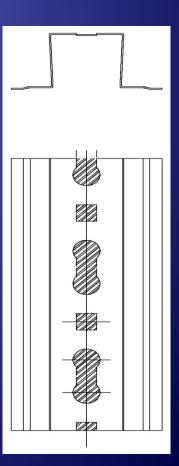
2SM

## H-profile and punched top profile



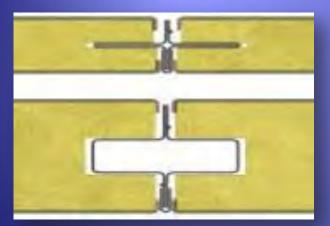


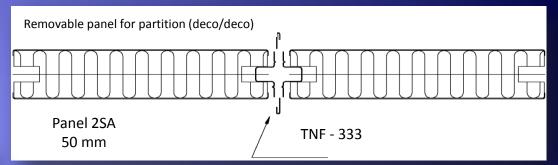


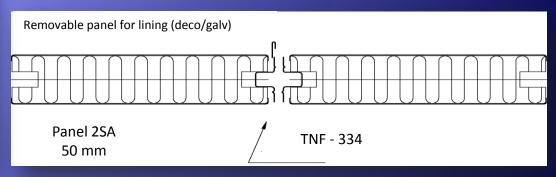


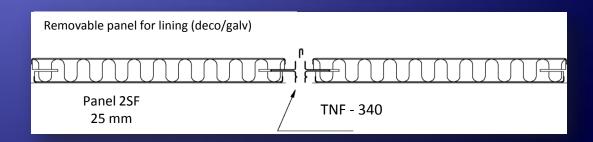


## **TNF Removable Panels**









## **TNF** Inspection door



# TNF range of ceilings



**B15 square tiles** 600 x 600 mm

#### B15 self-supporting Ceiling 300 mm wide

**B15 sandwich Carry up to 25 kg/m<sup>2</sup>** 600 mm wide panels

## **TNF** Ceilings for all situations

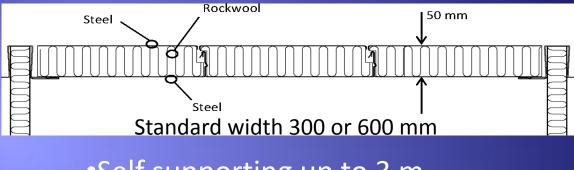
### Self supporting



# TNF C55 Selfsupporting ceiling

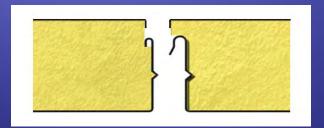


## **TNF C65 Ceiling**

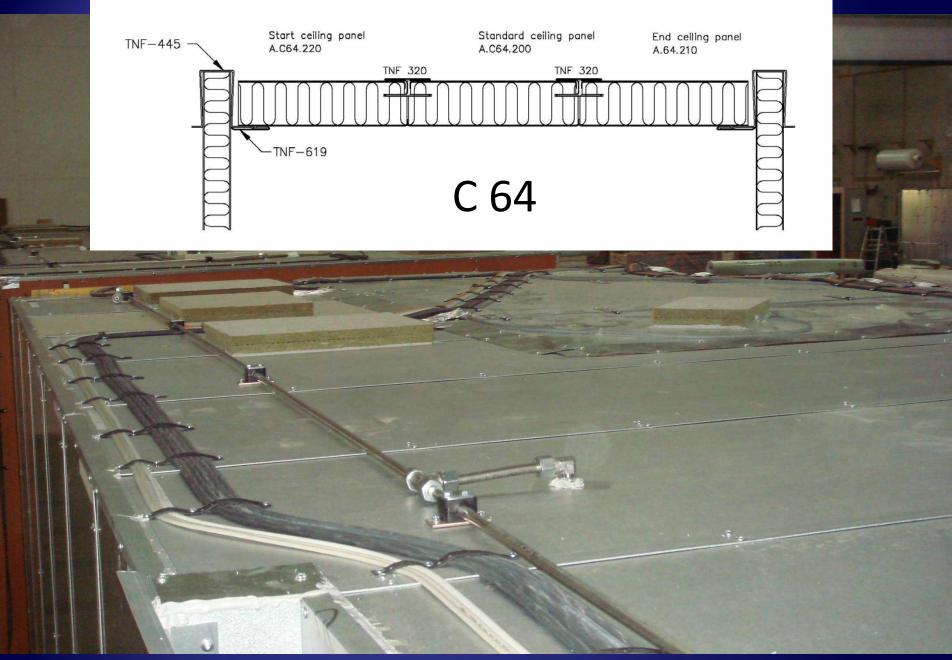


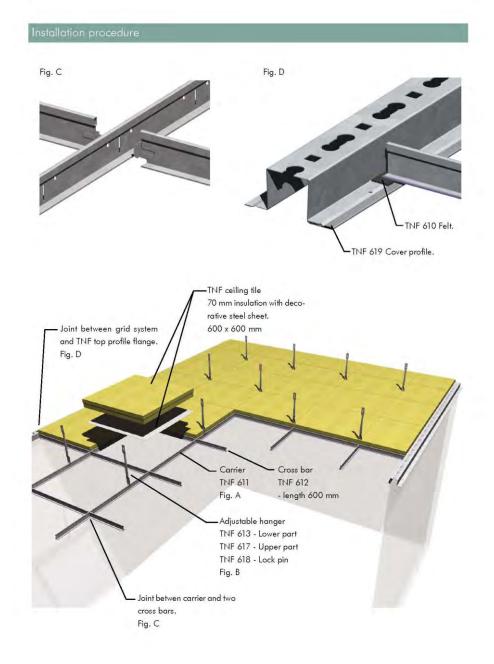
Self supporting up to 3 m25 kg load without suspension



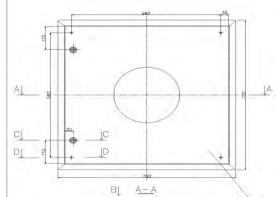


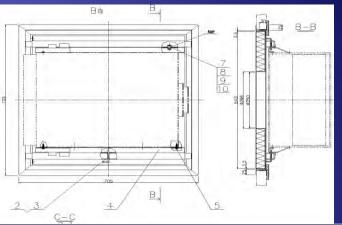
Inter – locking joint





## TNF Hatches





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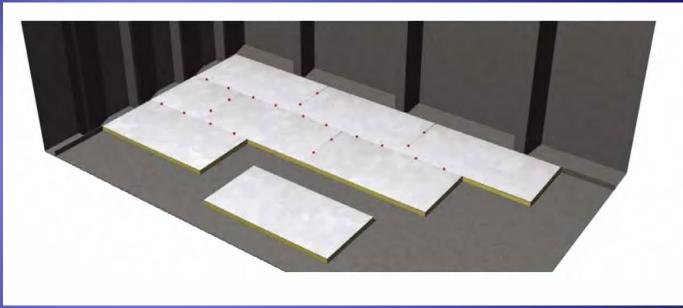
	TNF Standard Hatches										
	Hatch	Outer dimension		Cut out in the panel		Clear opening					
	Item No:	a1	a2	b1	b2	c1	c2				
	TNF 681	282	282	250	250	220	220				
	TNF 682	282	392	250	360	220	330				
	TNF 683	630	630	600	598	568	568				
1	TNF 684	512	512	480	480	450	450				

/tattor

Street International Access In



# **TNF FLOATING FLOORS**



Droduct coocifications



Product specifications		
Product names	TNF unit FS7	TNF unit FS5
Dimensions:		
-thickness	70 mm	50 mm
-lenght x width	600 mm x 1200 mm	600 mm x 1200 mm
	(approx. 2x4 ft.)	(approx. 2x4 ft.)
-weight	5,74 lb./ sq.ft.	5,12 lb./ sq.ft.
Thermal		
Transmittance	0,60 W/m² °C	0,80 W/m² °C
	(0,10 BTU/sq.ft. °F)	(0,14 BTU/sq.ft. °F)
Noice Reduction	R(w)=53dB	R(w)=48dB
incl. Steel dec	(S.T.C. = 53 dB)	(S.T.C. = 53 dB)
Fire class	A60	C-Class 3

# TNF Doors



### TNF Marine Fire Doors-

#### 815 hinged doors, basic construction

- · Single hinged doorlinal mode of steal plate with minerial wookcare
- · Double hinged doorleaf made of steel plate with mineral waskinne
- · double doors with two-point kitch on in-active doutlant
- · aluminium or steal trimlist fosterred with statt. rivets
- · frame mode of steel profile
- · top place or top part as frame profile
- \* pounter harne for wall installation
- \* stat hinger, acrewent to frome and doorient
- \* stat, sill, and sinker plate
- · seminentent for dococloses and magnet · cut out fair lock

Sill types





U-profile Z-pronie



#### A15 hinged doors, basic construction

- \* doorleaf made of steel plate with mimmely wool COT
- + steel transiti fouremed with p.g. meta
- · frame made start profile
- · stat. hinges, all state and striker plate
- · minforcement for doorcloser and rangest
- cuit suit for lack.

#### A60 hinged doors, basic construction

- Each lower of the stell lasts to show bashado + CORP
- double dopte will here point tash an in-active doprival with recented as, at, burrelie
- · steel transfer factored with plat. manu
- · have made of steel pupils
- 3-acri funges with ball bearing and presse supples
- · wardomenses for association and exaginet
- · cut out for lock
- · double door with 3-point cuinder lock in active dominant

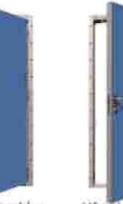
#### Donnieof Surfaces

- \* provider gamming (A15) as wer pasining (A6D), attandentif R/K colonal
- · PVC, energiand diskel
- . The Mopic
- · platelinus risel, AUJ 304 or 316



B15 single hinged door

815 double hinged door





Different all symmits fit all tages of bottom schulions:



Z-profile L-profile U-profile

#### Accessories

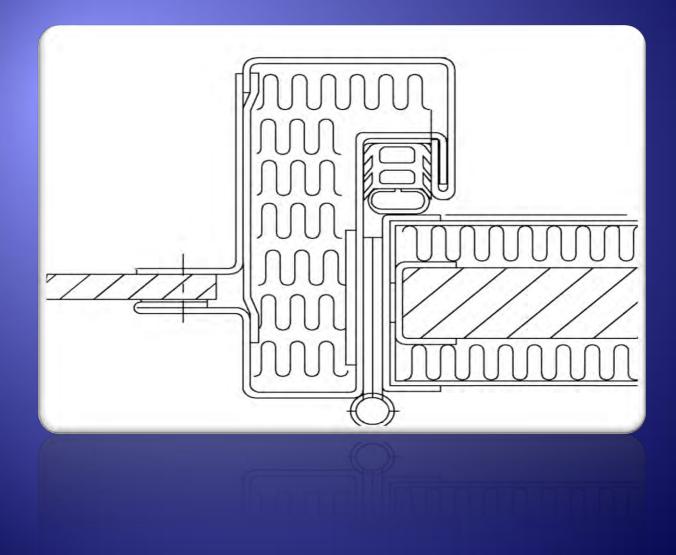
- The doors can be supposed with
- · lockcose, handlo, escurchmos and chinder · veniliation grills (150-500cm?)
- · kick out ponel.
- · dour closer
- · door magram/hold
- · kick plote in st.vt.







## A-door Box Frame



# **TNFWETUNITS**











# **TNF** Magic

## A new wall finish



- •Halogen free
- •Fire Retardant
- Low flame spread surface
- Low calorific value
- •Non toxic
- •No Clorides
- •No Cyanides
- •No Dioxin
- •Lightweight
- •Hard Wearing
- •Easily Maintained
- Competitive
- •Vast Colour Range
- •Stylish

## Durable surface

•Superior fire safety

•Galvanized steel with ARS-surface

•No foil, but impressed directly into the ARS-surface

•Surface thickness: 0,033 mm

Chemical resistant

## TNF Magic can be repaired

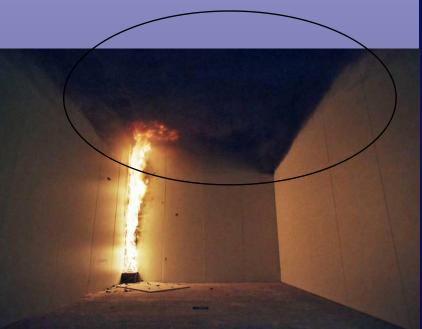
Scratches can be repaired with paint and brush
Shoepolish, rubber, oil and other materials can easily be removed with hot water and a cloth

Used in hundreds of ships and offshore units since 1997



# TNF Magic





### **100 kW ~ Burning Chair**



## 100 kW ~ Burning Chair

**PVC** 

Result of simultaneous fire tests at the European Fire & Conductivity Laboratory in Denmark and the Laboratorio Studi e Ricerche Sul Fuoco in Italy.



# **TNF Magic**



# PVC

### 300 kW ~ Burning Bed



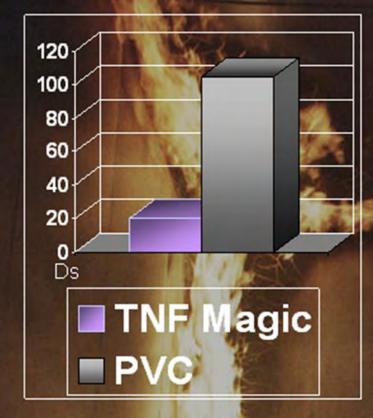
### 300 kW ~ Burning Bed

Result of simultaneous fire tests at the European Fire & Conductivity Laboratory in Denmark and the Laboratorio Studi e Ricerche Sul Fuoco in Italy.

## Smoke Density Test

## DANGER LEVEL IN PVC

- •Smoke density was dangerously higher in the PVC than in TNE Magic
- than in TNF Magic
- •High density of smoke would
- seriously impede rescue and fire
- fighting crews
- •Calorific value TNF MAGIC: 0,6-0,9 MJ/m<sup>2</sup> PVC.foil: 5 MJ/m<sup>2</sup>



Result of simultaneous fire tests at the European Fire & Conductivity Laboratory in Denmark and the Laboratorio Studi e Ricerche Sul Fuoco in Italy.

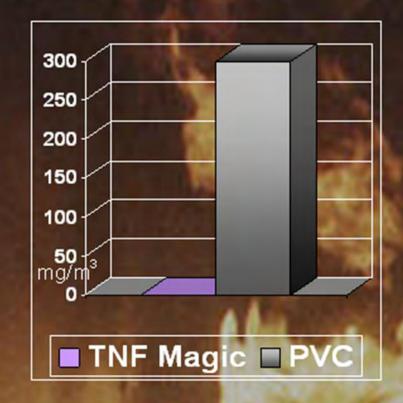
Magic

## HCI (Hydrogen Chloride)

•Levels of toxicity in the PVC would cause impaired breathing leading to water in the lungs

- •Sensitive equipment failure
- •No HCI detected in TNF Magic

## DANGER LEVEL IN PVC



Result of simultaneous fire tests at the European Fire & Conductivity Laboratory in Denmark and the Laboratorio Studi e Ricerche Sul Fuoco in Italy.

Magic

## **TNF MAGIC** ... if you want to be original...





## TNF Magic wins Ship Safety Award





### THE 2004 RINA ~ LLOYD'S REGISTER SHIP SAFETY AWARDS

organised by THE ROYAL INSTITUTION OF NAVAL ARCHITECTS

## and sponsored by LLOYD'S REGISTER

Winner of the Industry Category

INEXA A/S, DENMARK

For their entry

TNF Magic- A New Fire-Retardant Wall Finish

Manufactured by

TNF INTERIORS



The prestigious Ship Safety Award was presented by Mr Richard Moorhouse, Executive Chairman of Lloyd's Register (right) to Karl-David Sundberg, Chairman of Inexa TNF (center). Also present was the President of RINA, Mr Nigel Gee (left). The ceremony was held at the annual Dinner of the Royal Institution of Naval Architects in London on 27 April 2005.



The Lloyd's Register and Royal Institution of Naval Architects Ship Safety Award serves to promote a greater awareness of the need for safer ships. The award is presented to individuals or organizations whose work has made a significant contribution to improving safety at sea and the protection of environment. The distinguished judges confirmed that TNF Magic has made a significant contribution in both areas. It is the only time the prestigious Ship Safety Award has been given to an interior accommodation system.