



Feroform F3637 Technical Data Sheet

#### **Product Description**

For over 25 years FEROFORM F3637, high load and bearing insulation pads, have been the industry standard for tankers carrying heated bulk liquids in independent tank constructions. Approved by the main Marine Classification Societies, FEROFORM F3637 is designed to customer's requirements, easy and quick to install and is the ideal choice for new build and repairing or upgrading existing insulation systems. F3637 components have been specified on over 70 vessels of up to 37,000 tonnes in weight, classed by B.V., D.N.V., G.L., A.B.S., N.K.K., and Lloyds, to date.

FEROFORM F3637 is particularly suited to the insulating bearing pads of tankers carrying asphalt, bitumen, sulphur and coal tar tanks up to 280 °C. The combination of high insulation, low thermal expansion, and controlled friction means the tanks can expand freely without damage when they are filled and emptied.

FEROFORM F3637 has low thermal conductivity and as such achieves a significant temperature difference across the pad thickness as well as being reinforced with high-quality engineering fibres. These insulating tanker pads have typically 4 times the load bearing capacity of traditional systems.

#### **Product Advantages**

- Easy to Install
- · Maintenance Free, outlasting ships lifetime
- Superior Load Bearing Capacity to competing systems
- High Load Capacity means Fewer Pads required to Carry Cargo
- Low installation costs
- Controlled Tank Movement
- Can be used up to 300 °C
- Very Low Thermal Conductivity
- · Controlled, Stable Friction
- Non-metallic Formulation
- Designed to meet Customer Requirements with full flexibility on pad sizes
- Supplied fully machined
- Optimized design using Finite Element Analysis (FEA)

FEROFORM insulation pads are maintenance free and will outlast the ship. No pad has ever required an in-service replacement. Leading ship owners continue to place their trust in Tenmat for tankers and barges ranging from 1,000–37,000dwt.



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# Physical properties

Property	Units	F3637
Density	g/cm³	1.54
Flexural Strength	MPa	175
Flexural Modulus	GPa	7.7
Compressive Strength	MPa	300
Compressive Modulus	GPa	3.3
Tensile Strength	MPa	130
Charpy Impact Notched	kJ/m²	80
Shear Strength	MPa	100
Compressive Yield @ 68.9 Mpa	%	7.3
Brinell Hardness		38
Swell in Water (24 hours)	%	
20 °C		0.3
80 °C		1.3
Coefficient of Thermal Expansion	x 10-6/°C	
Parallel		19
Perpendicular		30
Coefficient of Friction (Unlubricated)		0.21-0.26
Maximum Operating Temperature	°C	
Continuous		200
Intermittent		300
Normal Working Pressure	MPa	80



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# **Approved Applications**

Insulating and support pads for hot cargo carrying ships such as; asphalt, bitumen, and sulphur.

#### **Sizes**

Our pad sizes are bespoke depending on the forces which they will see.

## Intended use

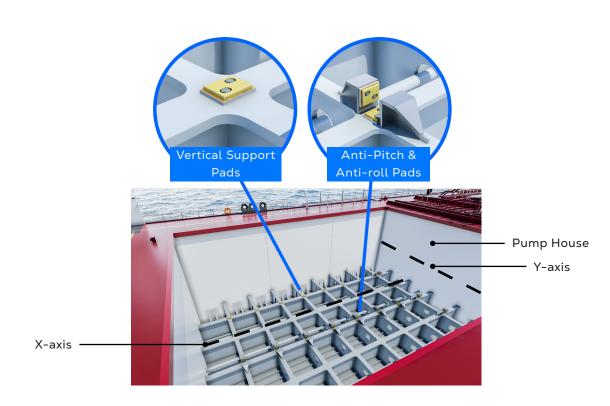
F3637 protects the ships hull from high temeperatures from the ships cargo it also takes the extreme loads and forces that they are subject to.

## Warranty

All Tenmat products come with a warranty for the lifetime of the ship.

#### Storage

- •Store in a cool dry place
- •Take care not to exceed safe working loads and heights for storage shelves and racks



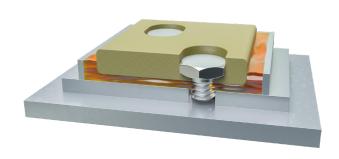


Typical Installations -for tank support and hull insulation pads

Typical support rib arrangement



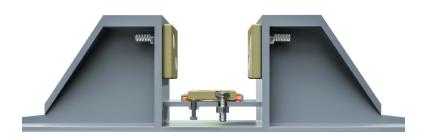
Typical no penetration arrangement



Typical support pillar arrangement



Side load installation: Typical anti pitch / roll pad arrangement



# FEROFORM F3637

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Advanced materials.

Tenmat warrants the materials it produces will conform to Tenmat specifications and approved drawings where applicable. It is entirely the customer's responsibility to make the final product choice and satisfy themselves of the suitability of the product for the intended application, carrying out testing where required. For construction projects, all products which the customer is intending to use on a particular project must be approved in writing by the customer's building designer, system designer or design control professional, to ensure compliance with the latest regulations.

The information contained in Tenmat data sheets is presented in good faith. The values are "typical only" and are based on test results generally in accordance with BS2782, ASTM, a variety of other main test bodies along with Tenmat internal test methods. These values should not be relied upon for specification purposes or the primary selection of materials. As the data sheet values are typical only, Tenmat does not warrant the conformity of its materials to these properties or the suitability of its materials for any particular purpose. It is the responsibility of the customer to do the necessary testing and satisfy themselves the product is suitable for the intended application.