

Vikotherm™

# The benchmark for wet insulation systems

Thermal insulation is necessary to avoid formation of hydrate plugs and wax build-up in subsea structures. The build-up begins when the oil/gas composition temperature is not maintained and begins to cool.

Without thermal insulation the cold seawater rapidly cools down the oil, forming hydrate/wax blockages making it impossible for a safe flow. Thermal insulation materials are applied in order to prevent formation of these blockages during a shutdown scenario or during normal operations.

During shutdown the extra insulation gives sufficient time for:

- “Short time” inspection of the pipe or equipment
- Time to solve production problems
- Time for methanol or glycol injection

Trelleborg Offshore offers a range of materials for wet insulation systems.

## Rubber

Vikotherm™ R2, a rubber based subsea thermal insulation, has 30 years of experience built in. The system combines flexibility and robustness and gives protection for the lifespan of subsea installations. Our state of the art technology is designed to perform in extreme environments. The three layer coating system provides HISC/ corrosion protection and excellent thermal insulation properties. The system is seawater, impact and creep resistant.



Vikotherm™ R2



Vikotherm™ S1

## Silicon

Vikotherm™ S1 sets a new standard in insulation performance based on advanced, non-syntactic silicone technology. Vikotherm™ S1 does not rely on glass microspheres giving it improved joint strength, increased heat capacity, long-term flexibility and resistance to hydrostatic collapse. It cures at room temperature without exposure to air with zero shrinkage. Vikotherm™ S1 is typically applied over anticorrosion coatings, using specialized application equipment.

## Epoxy

Vikotherm™ E1 and E2 are Epoxy syntactic foam systems. Combining an extremely high glass transition temperature with unprecedented resistance to hydrostatic crush pressures, these systems provide high strength, low conductivity insulation. Epoxy syntactic foams can tolerate a wide range of temperatures and are ideally suited for hot wet service conditions.

## Polyurethane

Vikotherm™ P7 insulation system has an industry track record spanning 30 years and is recognized as the benchmark by which other subsea insulation systems are measured. It has long been the system of choice for hot wet applications and field joints. This non-mercury catalyzed solid polyurethane insulation system is compatible with a full range of application specifications. Advances in application techniques guarantee integrity and reliability. The system is fully qualified to meet a complete range of applications and is not restricted by geometry or applied thickness.

## Glass syntactic

Vikotherm™ G3 is a non-mercury glass syntactic polyurethane insulation system. It can be applied across all geometrical structures and is qualified to meet a full range of application specifications. Not only does Vikotherm™ G3 incorporate all the benefits of an elastomeric system, its thermal performance is enhanced. Vikotherm™ G3 combines high performance with exceptional durability.

## Polypropylene tape

Vikotherm™ PT is a high strength, thermally insulating syntactic polypropylene tape which is suitable for deep sea application. Vikotherm™ PT is typically used by deep sea flexible pipe manufacturers and is spirally wound onto the pipe

as part of its construction to maintain flow rates and reduce the possibility of wax and hydrate formations.

The easy application of this material means that it can be applied in single or multiple layers depending on the required insulation levels.

PHYSICAL PROPERTIES		
Products	Temperature limit hot/wet (°C/°F)	Depth limit (m/ft)
Vikotherm™ R2	155/311	3,000/9,843
Vikotherm™ S1	135/275	3,000/9,843
Vikotherm™ E2	100/212	2,000/6,562
Vikotherm™ P7	90/194	7,000/22,966
Vikotherm™ E1	90/194	2,000/6,562
Vikotherm™ PT	90/194	2,000/6,562
Vikotherm™ G3	60/140	1,800/5,905

## Contact Us

Trelleborg Offshore delivers innovative and reliable offshore solutions that maximize business performance to meet your needs. Our dedicated and highly skilled staff are always on hand to provide seamless process support from initial idea, through to delivery and beyond.

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