

Waterproofing system for wind turbines Triflex Towersafe<sup>®</sup>



# Specialist in onshore and offshore wind turbines

Wind turbines exploit the forces of nature and give us clean energy. In the process, the tower and foundation are exposed to the force of the wind, and the constant movement stresses the structure. The strong deformation forces can encourage cracks in the tower and tower foundation, where penetrating moisture can lead to long term damage.

Triflex Towersafe is a waterproofing system specially developed for wind turbines. A flexible special-purpose fleece reinforcement ensures permanently elastic system properties. Its liquid form allows upstands, folds and even complex details, like bolt cage foundations, to be waterproofed leaving no seams or joints. Triflex Towersafe is the only specialist wind turbine waterproofing with BBA Certification, offering you a quality technical solution certified to the highest standard.

#### Universal application

The specially formulated Triflex Towersafe solution is designed to waterproof all areas of the wind turbine. From the tower and base to the nacelle, Triflex Towersafe can be used to provide long lasting and sustainable protection. Even areas under soil can be reliably waterproofed as the cured membrane is FLL certified as root and rhizome resistant as standard. Triflex Towersafe is not only an excellent waterproofing solution for wind turbine towers and foundations, but is also the ideal choice for nacelles, transformer buildings and even blade roots.













Nacelles

Tower flanges / joints

Foundations



## Triflex Towersafe fully reinforced waterproofing system for wind turbine protection





- Specifically formulated for the harshest conditions
- Cold applied liquid technology
- Simple, single and quick application for efficient installation
- Rapid curing, even in low temperatures (-5°C)
- Rainproof in 30 minutes and walkable in an hour
- High chemical and mechanical resistance for durable protection
- Solvent and isocyanate free
- Available in a wide range of colours and two optional finishes

### **Read more here**

### And this is how it's done by Triflex's national network of authorised contractors...



1. Concrete substrates are ground off.



2. Metals and coatings tested for adhesion and compatibility are cleaned with Triflex Cleaner.



3. The concrete foundation is primed with Triflex Towersafe Primer.

8. ... and a wearing

Towersafe are applied

to the foundation

layer of Triflex

surface.



**4.** A permanently elastic joint is incorporated.



5. Triflex Towersafe is applied to the details; Triflex Reinforcement Fleece is embedded. removing any air bubbles...



6. A top layer of Triflex Towersafe is applied.



**7.** Then Triflex Towersafe with Triflex Reinforcement Fleece...



9. Optionally, the still wet resin can be dressed with quartz sand.



**10.** Then finished with Triflex Towersafe Finish.



**11.** The surface is rainproof after 30 minutes and can be walked on after 60 minutes.

#### Technical support services

Triflex experts provide a suite of technical support and expert advice. With our network of trainined authorised contractors, project delivery is





Click or scan the QR code to see the system in action



# Triflex Towersafe comparison

	Triflex Towersafe PMMA cold liquid system	Two component Polyurethane (PU) resin-based systems
Substrate temperature	-5°C to +40°C	+5°C to +30°C
Humidity	max. <b>95%</b>	max. 70%
Residual moisture substrate	max. <b>6%</b> (by weight)	max. 4% (by weight)
Fully cured	60 minutes even down to -5°C	72 hours at 20°C
Walkable	After 1 hour even down to -5°C	24 hours at 20°C
Rainproof	After 30 minutes even down to -5°C	After c.a. 2-8 hours at 20°C



### Innovation and experience

Triflex has more than 40 years of experience in the waterproofing of structures. The specially developed Triflex Towersafe wind turbine foundation coating system delivers unique polymethyl methacrylate (PMMA) resin expertise to onshore and offshore wind turbine waterproofing and protection.

Proven in the harshest environments, the advanced polymer coating offers superior defence to minimise ongoing wind turbine maintenance.



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