



TIKKURILA

DRYTECH

Products to fight moisture, noise and asbestos



DRYTECH

FUNCTIONAL COATINGS

WWW.TIKKURILA.COM/DRYTECH

Drytech – microporous technology

There are many areas that need to be protected against moisture, condensation and noise. Tikkurila is now able to offer Drytech products as sustainable and easy-to-use solutions for professionals, industries and consumers alike for solving problems related to mold, condensation, noise and asbestos.

Tikkurila Drytech products are a series of functional coatings, based on a unique, microporous matrix technology. At the heart of their operating principles are the physical processes that occur in micropores – such as accumulation and evaporation of water. In addition, some of the coatings offer insulation, reduction of noise and encapsulation of asbestos.

Main functional properties of microporous coatings

- Adsorbing condensation water
- Spreading liquid water over the coating
- Breaking the surface tension
- Speeding up evaporation due to the enlarged surface
- Insulating.

All Drytech products are water-borne, and they meet European Health and Safety requirements. Their application areas are wide ranging from residential facilities, cellars and garages to industrial facilities, sports arenas, large parking areas and warehouses.

As one-component products they are easy to use and apply by brush, roller or spraying. There are also versions for industrial production lines.

Drytech products

BioRid – coating for mold protection*

GrafoTherm – anti-condensation coating

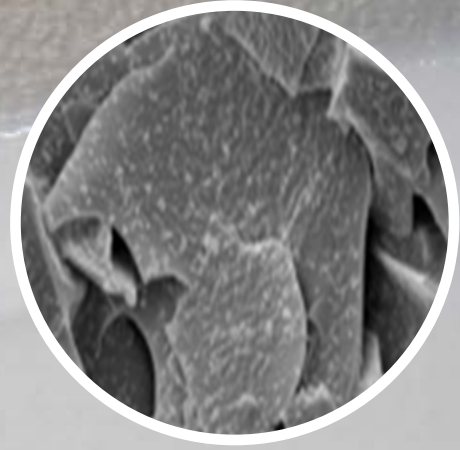
Acoustics – noise-damping coating

AsbestGuard – coating for encapsulation and sealing of asbestos

Most of the Drytech products are resistant against fire and spreading of flames. They do not release harmful gases or other contamination in a fire.

* mold protection refers to the unique microporous matrix technology and the physical processes occurring in micropores.





Electron microscope picture of a microporous matrix at a magnification of about 3,500X.

Why to choose Drytech products?

- Effective solutions against mold, condensation, noise and asbestos
- Water-borne products
- Easier to use, compared to making structural changes
- Solutions for industries, professionals and consumers
- Products proven over many years
- A wide range of application areas
- A long reference list
- Strong technical and training support from Tikkurila

Protect your property against condensation



Condensation is a physical process of change in the state of e.g. water vapor to liquid water in contact with any surface. Air contains water vapor, which condensates on a sufficiently cold surface into water. This process takes place during rapid changes in weather conditions such as rain or due to heat radiation at night, and causes problems especially in unheated halls or on uninsulated roofs and canopies.

GrafoTherm – anti-condensation coating

Problems caused by condensation are easy to prevent using the new Tikkurila **GrafoTherm** anti-condensation coating. It adsorbs the condensing moisture and prevents the formation of droplets. When the condensation period ceases, the moisture absorbed into the coating evaporates rapidly.

Condensation prevention

GrafoTherm is a one-component water-borne anti-condensation coating for steel roofing sheets, steel structures and other metal surfaces, where condensation and dripping-water problems occur. Exactly like BioRid, GrafoTherm is also built up of millions of micropores in the sizes 0.1–100 microns. They form a multi-layer, porous texture with excellent moisture-absorption capacity. Evaporation occurs faster than with ordinary coatings due to the microporous structure, which breaks water surface tension and spreads moisture all around.

Other properties

Heat insulation ($\lambda = 0.085 \text{ W/mK}$) and noise damping are other important functions of GrafoTherm.

By forming a relatively thick layer the coating slows down rapid changes in the surface temperature. Thus the surface temperature of e.g. profiled steel on the roof does not drop so quickly below the dew point in the night time. During hot summer days it also insulates surfaces and keeps them cooler.


Application

Typical application areas for GrafoTherm are warehouses and parking houses, ventilation ducts and water production plants, other production facilities and sport arenas, interior surfaces of wind turbine towers, sea containers, train and goods wagons, animal sheds, etc.

The best results with GrafoTherm can be obtained by spraying, but it can also be applied by brush or roller.

There is a special version for production line spray application – GrafoTherm Line.

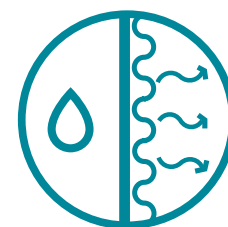
Product name	Specific gravity	Theoretical coverage	Water absorption	Application methods	Colors
GrafoTherm	1.1 kg/l	1.8 - 1.1 m ² /l (WFT 600 – 1000 g/m ²)	approx. 350g/m ² of water, 900 g/m ² wet (NF P 15-203-1)	Airless spray, brush and roller	white and grey
GrafoTherm Line	1.05 kg/l	1.8 - 0.9 m ² /l (WFT 600 – 1200 g/m ²)	approx 650 g/m ² of water, 1200 g/m ² wet (NF P 15-203-1)	Conventional spraying or plaster spray gun	white and grey



GrafoTherm helps you to solve condensation problems

- Effective condensation and dripping-water prevention
- Developed as an anti-condensation coating, but also insulates from heat
- Special modifications for painting line application available
- Environmentally friendly, and improves the indoor climate
- Complies with the requirements of EN13501-1, class A2-s1d0
- Resistant against fire and spreading of flames, GrafoTherm can be applied inside ships (MED-B-8648)

Keep your surfaces dry and clean



There are many ways to protect buildings against mold. Treating the walls, ceilings or other construction elements is obviously the easiest way to avoid mold contamination and to keep surfaces dry, compared to structural changes. This is especially true, if a coating has excellent moisture-evaporation properties. And Tikkurila now has such an excellent solution against mold in its range, a product called Tikkurila BioRid.

Tikkurila BioRid – mold protection*

BioRid is a water-borne, functional coating for elimination of moisture and for keeping the coating surface dry. Mold protection is based on the physical processes occurring in micropores. The coating temporarily accumulates water during the condensation period, and when the surface temperature is above dew point, the moisture evaporates into the atmosphere. This evaporation process happens in a more efficient way compared to a flat surface due to the microporous matrix technology. For example, one square meter of BioRid in a thickness of approx. 1mm represents a 12,000 times increase in relative surface, i.e. about the size of two football fields. That is why water evaporates faster and the painted surface stays dry.

Application

BioRid is especially suitable for new and previously painted surfaces in conditions, where protection of the paint film from mold contamination is required, such as living facilities, bathrooms, cellars, parking garages, food industry premises, warehouses and animal husbandry operations.

There are two versions of BioRid for brush, roller and spray application.



Tikkurila BioRid has been granted the Hygiene Certificate in Germany. Approved by Federal Association of German Food Inspectors (BVLK).



*refers to the physical processes occurring in micropores.



Product name	Spific gravity	Coverage	Application methods	Color
BioRid	1.2 kg/l	1.6 –1.0 m ² /l or 750 –1200 g/m ²	Brush and roller	white or grey
BioRid Spray	1.2 kg/l	1.6 –1.0 m ² /l or 750 –1200 g/m ²	Primarily for airless spray, can also be applied by brush and roller	white or grey

Tikkurila BioRid system – easy and effective care

For clean and nice-looking surfaces, Tikkurila offers its customers the BioRid system. In addition to BioRid and BioRid Spray, the system contains two other products: BioWash and ProSeal.

BioRid-system

1. **BioWash** – cleaning detergent
2. **ProSeal** – primer before applying BioRid
3. **BioRid** – functional coating

BioWash is a very effective cleaning detergent for removing mold and algae. It is suitable for new and previously painted concrete, plaster, brick and metal surfaces. Mix the detergent into water in ratio 1:2 and use it for cleaning the surface and making it ready for painting before treatment with BioRid, BioRid Spray or ProSeal. BioWash can be applied by spray, sponge or brush.

ProSeal is a translucent water-borne primer. It is recommended for use on porous and absorbing surfaces before applying BioRid or BioRid Spray. ProSeal is intended for interior walls and ceilings and can be applied by brush or spray.

Application instructions

- Use **BioWash** to clean surfaces from mold and algae.
- Treat absorbing and porous substrates with **ProSeal**.
- Apply **BioRid** according to the recommendations on the can to provide a functional and effective result.



A surface damaged by mold is washed and treated according to BioRid system.

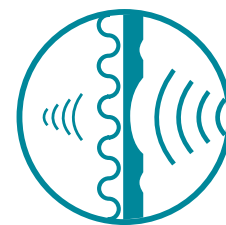




Keep surfaces dry with BioRid-system

- Eliminates moisture and keeps the surfaces dry
- Mold protection based on the physical processes occurring in micropores
- Forms an elastic and a clean surface
- Water-borne, easy-to-use products
- Meets EU Health and Safety requirements
- A wide number of application areas
- Many years of experience and a long reference list
- Strong technical and training support from Tikkurila

Solve your noise problems



Sounds, especially loud ones, that disturb your ears, interfere with your sleep or make it difficult to concentrate, are noise. The sound of playing loud music, moving trains or airplanes, as well as the sound from production facilities are all examples of noise. Tikkurila now has a coating to reduce noise.

Acoustics – noise-damping coating

Acoustics is a one-component water-borne noise-damping coating. The noise damping mechanism utilizes the same physical properties as other products in the Drytech family: large film surface area. The coating absorbs sound waves and distributes them among the micro-porous matrix that significantly reduces the level of sound at the output. Noise damping level – Tan Delta (combined) 0.116 (VTT-CR-00259-15, test report is available on request).

High film strength and elasticity provides vibration damping as well. When applied as a thick layer, the film also has heat-insulating properties.

Acoustics is ideal for use on steel roofing sheets, metal surfaces in vehicles and railway cars, ventilation ducts and other metal surfaces in various areas such as sports halls or production facilities, where vibration and noise problems occur.

Product name	Specific gravity	Theoretical coverage	Application methods	Colors
Acoustics	1.3 kg/l	1.1 – 0.4 m ² /l (WFT 1200 – 3600 g/m ²)	Airless spray, brush and roller	white and grey
Acoustics Line	1.2 kg/l	1.3 - 0.4 m ² /l (WFT 950 - 2800 g/m ²)	Conventional spraying or plaster spray gun	white and grey





Fight noise with Acoustics

- Excellent acoustic damping and vibration absorbing properties
- Forms very elastic and strong film
- Prevents condensation
- Complies with the requirements of EN13501-1, class A2-s1d0
- Resistant against fire and spreading of flames

Stop asbestos!



Asbestos is a set of minerals, which was widely used for construction elements in earlier days. Today it is known that prolonged inhalation of asbestos fibers may cause serious and fatal illnesses. That is why producers now replace asbestos, but sometimes it is still in use, especially in old premises. Tikkurila offers AsbestGuard to protect human health against asbestos contamination.

AsbestGuard – encapsulant of asbestos

AsbestGuard is a functional coating suitable for encapsulation and sealing of asbestos that cannot be removed due to structural conditions. It is recommended for interior use only as a treatment for asbestos-cement or asbestos-sprayed concrete surfaces, acoustic panels and insulation of ventilation ducts. **ProSeal** can be used for binding remaining fibers after removal of asbestos in certain cases.

AsbestGuard is a water-borne coating, and easy to apply by airless spray, brush or roller.









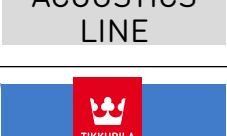




Better life with AsbestGuard

- Reinforces the technical properties of asbestos
- Binds loose fibers effectively
- Insulation and noise-damping properties
- Non-flammable, fire protection class A2
- Reduces movement in structures

DRYTECH PRODUCT RANGE

Products	Description	Colors	Pack sizes
	A water-borne functional coating containing micropores, which eliminate moisture and keep the surface dry. Also for brush and roller application.	white, grey	9 l, 18 l
	A water-borne, functional coating containing micropores, which eliminate moisture and keep the surface dry. Primarily for airless spray application.	white, grey	18 l, 100 l
	A cleaning detergent for removing mold and algae.	clear	5 l, 25 l
	A water-borne primer with good penetrating properties. To be used for absorbing surfaces before applying BioRid, BioRid Spray or AsbestGuard.	transparent	5 l, 25 l
	A one-component, water-borne, anti-condensation coating for airless application.	white, grey	9 l, 18 l
	A one-component, water-borne, anti-condensation coating for production line application.	white, grey	1000 l
	A one-component, water-borne, noise-damping coating for airless application.	white, grey	9 l, 18 l
	A one-component, water-borne, noise-damping coating for production line application.	white, grey	1000 l
	A water-borne, functional coating for interior use. Suitable for encapsulation of asbestos and sealing asbestos that cannot be removed due to structural conditions.	white	18 l, 100 l

Examples of application



Areas treated by BioRid system at Paulaner Brewery



GrafoTherm anti-condensation coating in the garage



BioRid is an optimal product to be used at a brewery



GrafoTherm anti-condensation coating on a roof plate



Sandwich boards treated with BioRid in a warehouse building



BioRid in Oyster mushroom cultivation plant

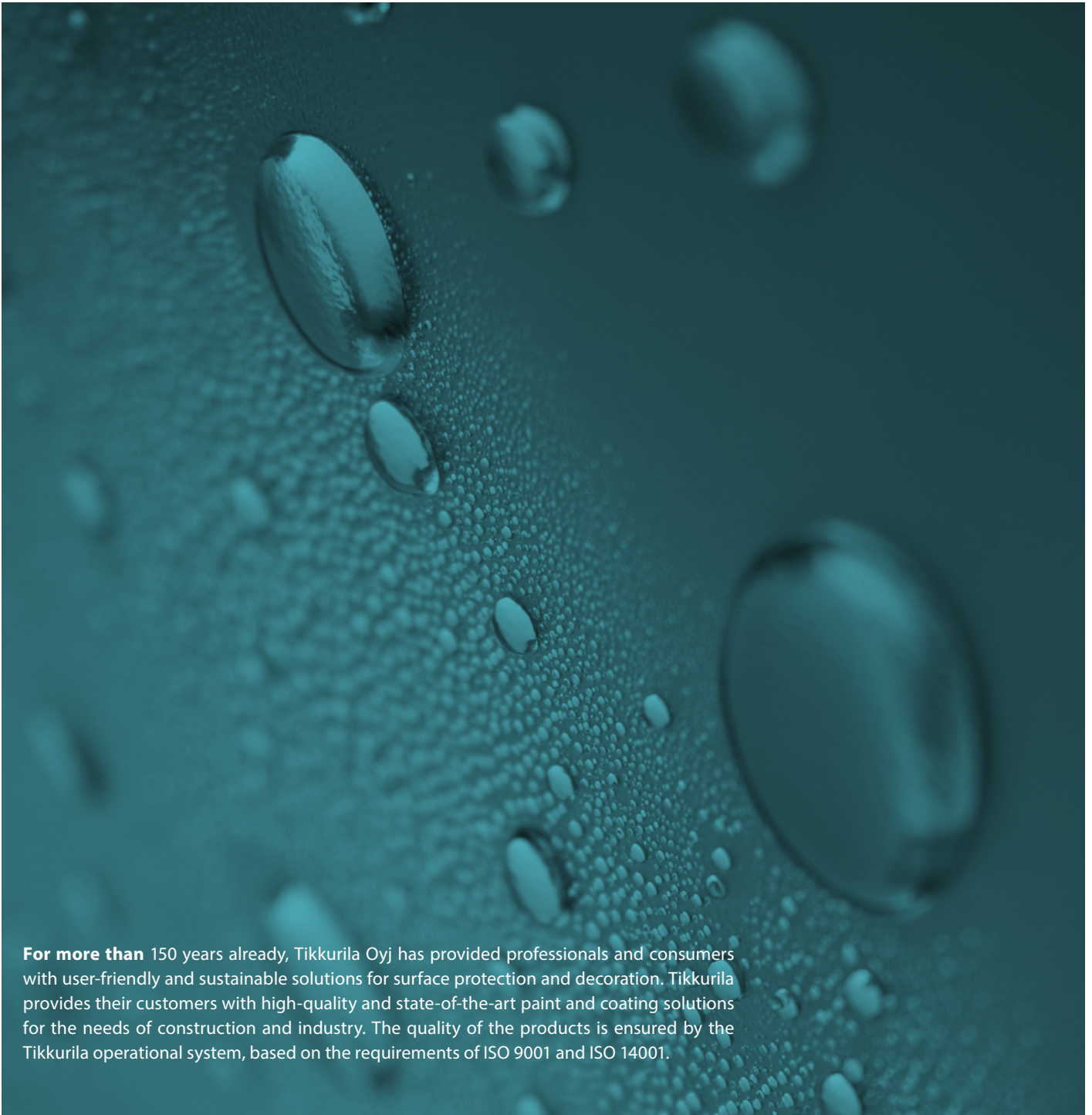
DryTech products are used successfully e.g at:

Brauerei Göller, Zeil am Main; Schafft – Unilever Deutschland, Ansbach; Brauerei Paulaner, München; Kumpf Fruchtsaft, Markgröningen; Bayerische Landesanstalt für Weinbau und Gartenbau, Veitshöchheim, Neumarkter Lammsbräu, Neumarkt; Andritz Hydro, Ravensburg





TIKKURILA



For more than 150 years already, Tikkurila Oyj has provided professionals and consumers with user-friendly and sustainable solutions for surface protection and decoration. Tikkurila provides their customers with high-quality and state-of-the-art paint and coating solutions for the needs of construction and industry. The quality of the products is ensured by the Tikkurila operational system, based on the requirements of ISO 9001 and ISO 14001.

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DRYTECH
TECHNOLOGY



ANTI-CONDENSATION



MOLD PROTECTION*



NOISE DAMPING



ENCAPSULANT OF ASBESTOS

* refers to the physical processes in the micropores