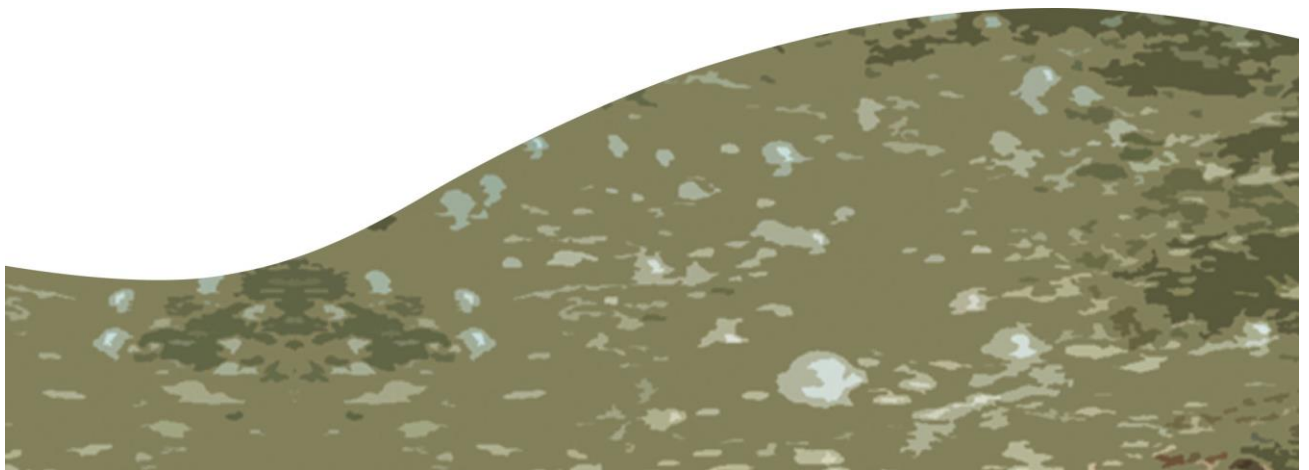




penergetic g

FAQs



What is penergetic g?

How does penergetic g work?

penergetic g stimulates the organisms in the slurry. As a result, it boosts the aerobic process. Furthermore, the sedimentation and floating layers are being broken down. What are the effects of penergetic g?

Penergetic g optimizes the slurry's consistency and makes it more homogeneous and flowable. The aerobic conversion process (rotting state) reduces floating and sedimentation layers and leads to a reduction in odor emissions. The slurry becomes more valuable in terms of its fertilizing effect and less aggressive (less scorching). In addition, the slurry leaches out less as a result of the treatment.

Where is penergetic g used?

- Underground pit
- Cleanout channel
- Slurry pit
- Lagoon
- Tank
- Slatted floors

The range includes one product version each for cattle and pig slurry.

Where should penergetic g NOT be used?

- . Do not use penergetic g in biogas plants.

What is the difference between penergetic g and penergetic k?

penergetic g was developed especially for treating slurry / liquid manure. For optimal results, it must be applied to liquid substances (urine, water). penergetic k improves aerobic rotting processes and accelerates the materials' conversion to compost. It is used in dry environments (e.g. with animal bedding).

What is the difference between slurry and manure?

Slurry is a natural fertilizer, mainly consisting of the urine and dung of farm animals. Depending on the water and bedding content, the resulting slurry is known as thick slurry, thin slurry, slurry or liquid manure (see manure). Pig slurry contains approximately 7% of dry matter and cattle slurry approximately 8 - 11%. Manure, on the other side, contains 22% or more of dry matter.

What are the indicators for changes?

The floating and / or sedimentation layers are reduced and the slurry becomes homogeneous. Also, the air quality in the animal sheds improves and bubbles are formed in the slurry.

How long will it take until results can be observed?

How long it will take for the first reactions to take place after the initial application of the products depends on the original condition of the slurry. In favorable conditions, the effects may become discernible after approx. 3 - 4 weeks. On average, the slurry will be rotting after 3 - 4 months (sometimes a floating layer forms at the surface. However, this does not harm the process). In difficult cases, the transformation may take up to a year.

What if there are no results after several weeks?

If the effects do not start to take hold after several weeks of using penergetic g, it is possible to stimulate the aerobic process by 'vaccinating' the slurry with slurry from a different farm. If penergetic g is used in 'old' slurry tanks, the slurry might change back to its original condition after a while of penergetic g producing effects. This proves the efficacy of penergetic g, since it means that old slurry sediments are being dissolved. This degradation process leads to increased emissions of poor-smelling gases and a risk of plants being scorched by the slurry. Please watch out for this effect and be careful when applying the slurry! It is vital to continue treating the slurry to ensure that old deposits are broken down completely.

Will pathogenic germs be killed?

Various studies have shown that pathogenic germs in the slurry are severely reduced by the activity of the aerobic microorganisms. Salmonella, enterococci and coliform germs may be reduced as a result of the production of natural antibiotics (especially yeasts).

Does penergetic g improve the climate in animal sheds?

As soon as the aerobic processes stabilize, the climate will improve. However, this also depends on the feed.

Therefore, we recommend also using penergetic t and AquaKat.

Will the nutrient content of the slurry increase?

Since ammonia is converted to ammonium, the overall N-content of the slurry increases, and the fertilizing effects improve. Besides, well-rotted slurry promotes soil life which leads to an improvement of the availability of nutrients.

Will grass seeds in the slurry be reduced if it is treated with penergetic g?

penergetic g does not have any chemical or systemic effect. When using penergetic g, the microbiology in the slurry is stimulated and anaerobic conversion is promoted.

Does penergetic g improve the soil structure?

Using slurry that has been treated with penergetic on fields and meadows has a positive effect on the fertility and structure of the soil. Farmers know that soils that are optimally supplied with nutrients tend to be less weed infested.

penergetic g does not have a direct effect on the soil structure; we recommend using penergetic b to achieve this.

Why is penergetic g used in such small doses?

Transformation of the slurry results from the activity of the aerobic organisms that are already present in the slurry and not from any chemical or biological effect on the part of penergetic g. The product acts as a catalyst for activating microorganisms and is thus used in small doses.

Can penergetic g be used in biogas plants?

penergetic g should not be used in biogas plants since it stimulates aerobic processes. However, biogas plants require anaerobic processes.

Is penergetic g in any way harmful to humans, animals or the environment?

penergetic g is completely harmless to humans, animals and the environment.

Carrier materials

Calcium Carbonate

Suitable for long-term activation.

- Please see the safety data sheet (SDS) of Calcium Carbonate for more details.

Molasses

penergetic g Molasses yields rapid effects and is suitable for mixing with liquid fertilizers.

- Please see the safety data sheet (SDS) of Molasses for more details.

Can penergetic g Molasses and Calcium Carbonate be combined?

Yes, it is possible to combine the products. Molasses can be used as a rapid activator (starter) and Calcium Carbonate for a long-term, sustainable activation of the slurry.

- Please see the penergetic g application notes for more details.

Application of penergetic g

In effluent channels without floating layer

Mix penergetic g with water in a watering can and pour evenly over the channel. Better results may be achieved by pouring 2/3 of the recommended amount at the head of the effluent channel.

In slurry pits

Pour the penergetic g / water mixture over the rotating agitator or puncture the floating layer with a suction pipe and introduce the penergetic g / water mixture through the pipe. Pump the slurry into the slurry barrel and then pump it back into the pit. For large pits, the procedure should be repeated at several points.

In underground pits and cleanout channels

Mix penergetic g with water in a watering can and pour evenly over the empty channel or pit. Repeat this procedure each time the channel or pit is drained.

Can penergetic g still have an effect if it is used for the first time just before the slurry is spread?

penergetic g should be applied at least 4 weeks before the slurry is spread. However, it would be preferable to apply it in autumn or to leave at least 3 months before the initial application and spreading.

What happens if straw is used as bedding?

Long straw may lead to floating layers building up again since long straw tends to float. If penergetic g TS is used regularly, this straw rots quicker and the floating layer remains unchanged.

Can other slurry treatment agents be used in addition to penergetic g?

A combination with other substances is possible if no other informed products are used. "Chemical" agents may reduce the effects of penergetic g. Using antibiotics or disinfectants may harm the desired aerobic microorganisms and thus reduce the effects of penergetic g.

Can penergetic g be fed to animals?

No. It is not advisable to feed penergetic g to animals since it is not intended as a feed and thus does not comply with the relevant feed directives.

Is it permissible to apply slurry treated with penergetic g in water protection areas?

The spreading of slurry, even after it has been treated with penergetic g, must be carried out in accordance with the provisions of local law.

Can penergetic g be used in all types of slurry stores?

Yes.

Is it possible to use penergetic g with very small and very large volumes of slurry?

Yes, penergetic g can be used in all situations.

Dosage / timeline

Dosages

The application guidelines are based on an average value, the dosages might need to be adjusted according to local conditions (climate, animal, space, etc.).

- Please see the penergetic g application notes for more details.

Why are subsequent doses of penergetic g necessary?

In order to keep the stimulated rotting bacteria active, it is necessary to re-apply penergetic g since new slurry is continuously added.

- Please see the penergetic g application notes for more details.

Are subsequent doses necessary for stored slurry?

Yes, the slurry must be re-treated every 2 months. Dosage: 1 kg per 100 m³ of slurry. If new slurry is added periodically to the stored slurry, this must also be taken into account.

Is it possible to use too much penergetic g?

If after 2-3 years the slurry should return to its original condition (sediment and floating layers, odor), the weekly application of penergetic g should be stopped immediately. The situation should return to normal within a short period of time. Subsequently, the penergetic g doses can be reduced.

Further product details

Which certifications have been awarded?

Penergetic Int. AG is ISO 9001:2015 and FAMI QS certified and registered with the following organizations: FIBL, InfoXgen, Bio Austria, IFOAM and OMRI.

What is the shelf life of penergetic g?

The powder lasts 5 years from the date of manufacture.

Molasses lasts 18 months from the date of manufacture.

How should the product be stored?

Do not store the product on metal, but on a wooden surface. The containers must be stored in a dry environment and have to be tightly closed after use. Store the powder in a dry place.

Store molasses in a dry and cool place (max. temperature 35° C).

Tips and tricks

How can the effects be enhanced?

- By using additional penergetic products and the AquaKat.
- By occasionally briefly stirring the slurry.
- If the slurry is particularly thick: add 10% water.

Specialized products

penergetic g for cattle slurry TS

Slurry produced by dairy cattle contains sometimes a large amount of straw. The product promotes the rotting of straw, thus reducing floating layers.

- Please see the penergetic g for cattle slurry TS application notes for more details.

penergetic g for pig slurry TS

Is used for pig slurry with a high content of dry matter.

- Please see the penergetic g TS application notes for more details.

penergetic g for biogas

penergetic g for biogas was developed especially for biogas plants. Its effects are geared towards anaerobic transformation.

- Please see the penergetic g for biogas application notes for more details.

Example scenarios

After a period of the product being effective, the slurry returns to its original condition

Generally, it should first be ascertained whether any inhibiting agents have entered the slurry. It is also possible that old residues may have dissolved in the slurry itself. The treatment should definitely be continued.

A temporary thickening of the slurry can also occur as a result of reduced water intake by the cattle in winter.

If the animal shed / slurry pit / channel has been constructed recently, the fresh concrete is alkaline and inhibits the formation of microorganisms. In those circumstances, it takes a little bit longer and possibly some "old" slurry to activate the organisms in the slurry.

The number of flies has increased since penergetic g is in use

The use of penergetic g results in a reduction of the fly population, as putrefaction processes attract flies. However, a temporary rise in the fly population may occur until the slurry is fully transformed into an aerobic state.

The slurry smells more strongly since penergetic g has been in use

This usually occurs when old deposits dissolve and indicates that the slurry is reacting. In order to get through this phase as quickly as possible, it might be necessary to add extra penergetic g or add a single dose of penergetic k to the slurry (do not stir) to reduce unpleasant odors.

Is it possible that a floating layer is still there after penergetic g has been applied?

It takes some time to break down floating layers. A thin floating layer will always be on top of the slurry because the straw in the slurry will float to the top.

Bubbles form after the initial application of penergetic g, later on this stops. What has happened?

Bubbles form only during the initial application period. They will disappear later on.