

GEOSYNTHETICS

Using TenCate Nicolon® tunnel nets

 TENCATE
Nicolon®

INSTRUCTIONS

 **TENCATE**

USING TENCATE NICOLON® TUNNEL NETS

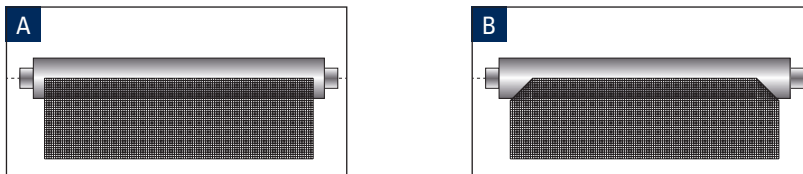
Tunnel nets are available for all phases, with different strengths and properties. Before deciding on a type of tunnel net, calculate the total compost weight in the tunnel and compare it with the maximum pulling load of the tunnel net.

Besides strength, required air flow is also important. In some cases climate units have not enough air capacity to get the air through the net and into the compost. This has little to do with air pressure and much with air capacity. In that case one should choose for a net with higher air flow. The benefit of a tunnel net with high air flow is reduction of energy costs.

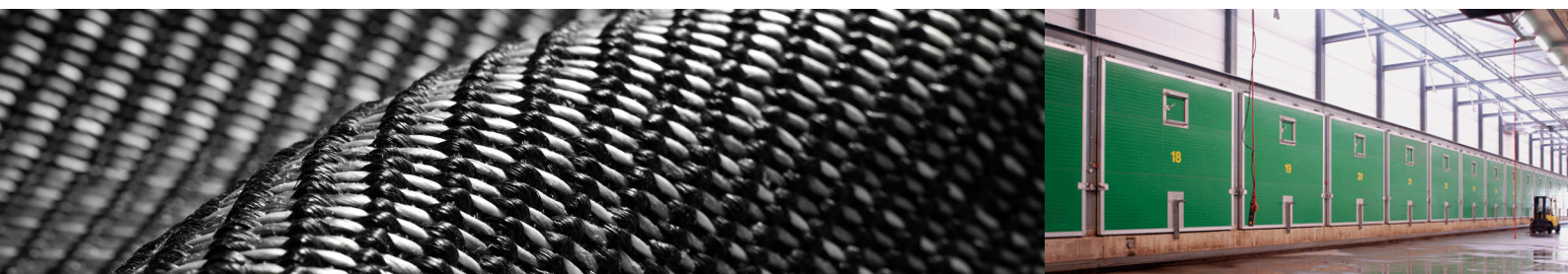
When should a tunnel net be replaced? The factors to consider are remaining strength, air flow and costs. The cost of each pull per net and what are the effects on costs if a worn net lowers production. Restricted aeration has a very negative influence on compost quality and accordingly on productivity. This means nets should not be checked for mechanical damage only but also for remaining air flow. This can easily be done using a torch and shining through the net comparing it with a new unused piece of the same net. It is also important to register the number of pulls with the net to predict the time for replacement. But in the end, the best time for replacement is calculated based on remaining strength, air flow and costs.

TIPS ON USING TUNNEL NETS:

- › Connect the net to the winch as shown in the figure below. (A) Bring the net to the winch as shown. (B) Bring back the sides for approx. 10–15 cm (4-6 inch) and fasten the bolts, if available. Start to wind up the net slowly (at least 5 windings without load). Continue with slow pulling until the total load is moving.



- › Start the pulling operation slowly to give the net the opportunity to stretch slowly. Keep on pulling on low speed until the total load is moving. If the load is moving the pulling can be speeded up to the maximum capacity the system will allow.
- › During the pulling operation try to avoid, the pulling is discontinued. When the pulling starts again start slowly as described under the previous point. The highest strength is required from the net during this phase in the pulling operation.
- › Clean the nets after every pull. This way it is avoided, dirt sticks between the layers of the net, which can cause unequal pulling due to differences in thickness on the winch. When the net is still flat on a concrete floor, be careful with cleaning with a high pressure cleaner, because this type of cleaning will damage the yarn and reduce the pulling strength.
- › Inspect the nets after every pull to check there is no mechanical damage caused by stones or other sharp items.
- › Inspect the tunnels and glide nets before installing the tunnel net. Loose sharp items can cause mechanical damage to the tunnel net.
- › The status of the glide net is important for the required strength. E.g. pulling without a glide net increases the required strength for more than 60%. Pulling with a damaged glide net will shorten the lifespan of the tunnel net.



- › Most tunnel nets can only be pulled at a temperature around 20–25°C. Pulling at higher temperatures will reduce the pulling strength. E.g. pulling at 40°C will reduce the pulling strength with approx. 40%. Stronger tunnel nets produced with a special PE yarn can be pulled at a higher temperature. Make sure you know which type of net you are using.
- › Lifting the tunnel net during the pulling must be avoided.
- › If the tunnels are cooked out the net must be removed out of the tunnel. If the nets are heated up without compost on it the net will shrink.
- › If the nets are slightly damaged during the process it is helpful to seal the tears with a hot knife or lighter.

Good installation of glide nets and controlled pulling of tunnel nets is one way to increase the lifespan of the nets. Regular cleaning and monitoring of the nets on the other hand is also an important item to take in account.

CLEANING OF TENCATE NICOLON® TUNNEL NETS

Cleaning of TenCate Nicolon® tunnel nets serves many goals like increased hygiene, preventing diseases, increased lifespan, etc. It can best be done by spraying the nets with lots of water. Preferably, no detergents are used because they will influence the net in a negative way.

In the marketplace several net cleaning machines are available who in general clean the nets very good. In many cases they work with a lot of water, low spraying pressure (< 10 bar), multiple flat spraying nozzles and a rolling mechanism. TenCate advises this way of cleaning.

In areas where there is no net cleaning machine, a high pressure cleaner can also be used. In those cases please pay attention to the following instructions:

- › Keep enough distance between the nozzle and the net (at least 25 cm).
- › Clean with max. 100 bar.
- › Make sure pressure and water can flow away (free hanging of the net).
- › Use a flat spraying nozzle and never a rotating or equal nozzle (no pencil jet).



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