

# FLOORING SYSTEMS FOR FREESTALLS AND FOR SLATS

TENCATE  
**Nicolon**<sup>®</sup>

## MATERIALS THAT MAKE A DIFFERENCE

European regulations make it necessary to reduce CO<sub>2</sub> emissions caused by ammoniac and methane. In cooperation with specialists in the dairy farming TenCate Geosynthetics has developed several components for low emission freestall flooring systems, such as the filtering component and the reinforced membrane for the liquid storage.

Next to reducing CO<sub>2</sub> emissions the flooring in a freestall must be comfortable as well. The essence of freestall systems is that the animals are free to go and lie down wherever they want. The chemical resistant filter fabric creates a breathable flooring, improving animal welfare, prevents hoof problems, and reduces heat stress in summertime. The animals will have good grip on the surface of the floor.

Low emission floors are separating the urine and the solid fraction directly at the surface. This will drastically reduce ammoniac emissions. By separating the fluid and solid fraction the farmer will be able to handle his mineral balances at the farm much better. The fluid fraction has a high nitrogen content. The solid fraction is rich on phosphates. This offers the farmer the opportunity to reduce his fertilizer usage.

The low-emission floors are offering a less labor intensive barn system to the farmer. The solid fraction can be moved by a robot that scoops the manure directly of the flat surface. These type of floors reduce the fine dust emissions drastically. No straw, sand or dried manure have to be spread onto the floors.

Manure storage management will be much more efficient, Mixing of manure before spreading is no longer necessary. Manure transport will be reduced.

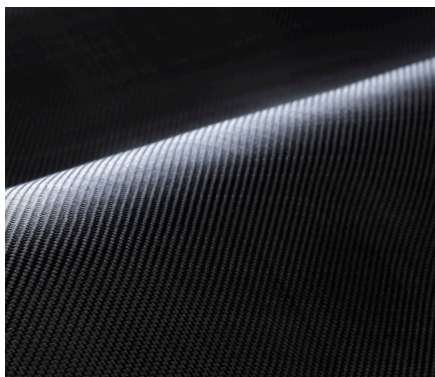
TenCate components and know-how are also being used in systems that are developed to adapt to the cubicle systems and reduce the emissions in existing stables.

TenCate is offering several components to create successful low emission freestall floors, with several important benefits.

- › Excellent grip of the claws on the material
- › Breathable flooring for extra cow comfort in summer period
- › High chemical resistance
- › Scraper picks up the solids easily



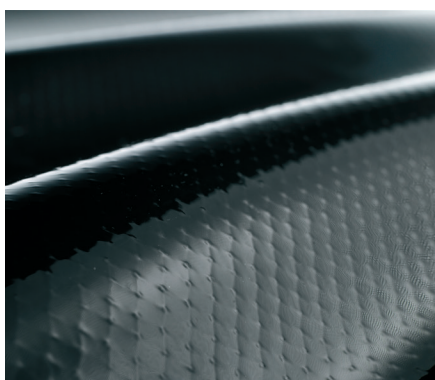
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## TENCATE NICOLON® R241

High chemical resistant filter fabric. Highly urine and manure resistant. This material offers a perfect smooth surface. This very strong material is safe for the animals and does not contain any toxic materials. Nicolon R241 has a proven reliance under heavy conditions. Produced under the highest standards for safety and quality and CE and ISO certified.

Material : Polyolefin, Tentered and Calendered  
Weight : 250 gr/m<sup>2</sup>  
Thickness : 0,5 mm



## TENCATE NICOLON® C119/800

Kiwa/TBU certified reinforced membranes. This sub base membrane is flexible, resistant, long lasting and strong. Essential characteristics for the harsh environments as urine containment. TenCate has many years of experience with this product under different conditions. Nicolon C119 offers the highest safety against leakage of fluids into the sublayers.

Material : HSPD coated Polyester reinforcement.  
Weight : 970 gr/m<sup>2</sup>.  
Thickness : 1 mm



## TENCATE POLYFELT® TS65

High quality separation and protection fleece Polyfelt TS65. Produced according highest standards and ISO 9001 certified. Perfectly suited to protect the vulnerable parts of the systems and create a tough filter around the fluid storage preventing clogging. Polyfelt geotextiles are mechanically bonded continuous-filament nonwovens made from 100 % UV-stabilised polypropylene.

Material : Chemical resistant PP  
Weight : 285 gr/m<sup>2</sup>  
Thickness : 2.5 mm

