

UniSart CN 140 Backed



Description

UniSart CN 140 Backed is a supported cellulose nitrate membrane, specifically optimized for rapid lateral immunochromatographic tests. The pore structure of the membrane yields controlled and fast lateral wicking of samples and reagents. It is produced through direct casting onto a clear and transparent 100 µm polyester film.

Applications

Lateral flow tests are still sustaining a strong growth in all IVD markets including women fertility testing, cardiac markers, drugs of abuse, infectious diseases and many others. Developed in a one step strip format, they allow for the rapid detection of an analyte through the powerful and sensitive immuno reaction. The **UniSart CN 140 Backed** is designed to be the ideal solid phase for all these assays either in the direct sandwich or competitive format.

Easy handling

The strong polyester backing allows for easy handling of membrane rolls or sheets with reduced risks of damaging the membrane. The membrane can also be laminated to any support without any risk of adhesive or solvent migration. In addition, the crystal clear polyester backing allows to read the signal through it.

High protein binding

Cellulose nitrate membranes exhibit high non-specific binding of proteins due to unique surface properties of the material. Through its highly porous, sponge-like 3-D structure, the **UniSart CN 140 Backed** membrane has a high specific surface area leading to outstanding protein binding capacity per membrane area. This in turn will provide the basis for high signal intensity and sharp test- and control lines.

Superior wettability

Although cellulose nitrate polymers are naturally hydrophobic, UniSart CN 140 membranes are treated with a specific anionic surfactant to have superior wettability.

Smooth surface

The **UniSart CN 140 Backed** membrane is formed by an air casting process, where solvents are evaporated from different cellulosic polymer solutions. Because of the inherent asymmetry of this process, the air side of a membrane is always more susceptible to defects like dust, powder or unusual roughness. However, a new patented manufacturing process allows us to always produce the **UniSart CN 140 Backed** membrane with a clean and defect-free surface.

Specifications and characteristics

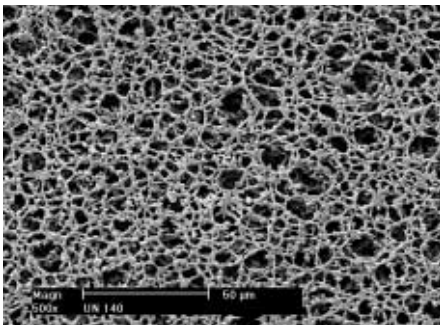
Membrane

Material	cellulose nitrate polymers
Thickness specification	125–155 [µm] (membrane layer)
Capillary speed specification	110–165 [s/40mm] (across casting direction)
Surfactant	anionic (sulfonate)
Protein binding	≈30 [µg IgG/cm ²]
Backing	100 [µm] thick clear polyester film

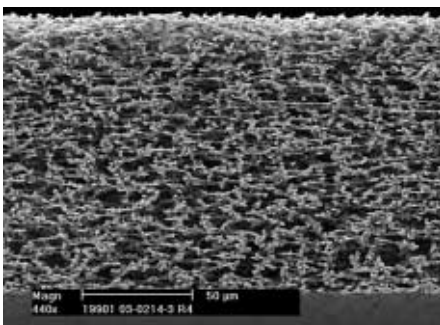
Packaging

Roll core	76.8 [mm] ± 3" (inner diameter)
Core	plastic material
Standard membrane width*	25 [mm]
Standard membrane length*	50 [m]
Membrane wound with yellow interleaving paper	

* custom dimensions are available upon request



1.1. Air side CN 140 Backed (SEM @ 500x; bar = 50 µm)



1.2. Cross section CN 140 Backed (SEM @ 440x; bar = 50 µm)

High performance lateral flow membrane

Consistency

Sartorius stands by its consistency from roll to roll and lot to lot, simply because consistency is the most important parameter for IVD manufacturers. Since the first production of membrane in the world started at Sartorius in 1929, we have developed a unique know-how. Today, a new plant in Germany along with a patented membrane casting process and stringent quality control ensure that all **UniSart CN 140 Backed** membrane you receive will always be within specifications.

Quality

A certificate of Quality is delivered with every new batch of membrane.

On the certificate you will find the mean value of the capillary speed and thickness of the complete batch from which the slit rolls originate. The variance inside this precise lot will also be given. A label on each membrane slit roll allows for precise tracking.

Ordering information

Product number

1UN14ER050025	UniSart CN140 Backed roll, 25 [mm] wide and 50 [m] long
1UN14ES25020001	UniSart CN140 Backed two sheets, 250 × 200 [mm]

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