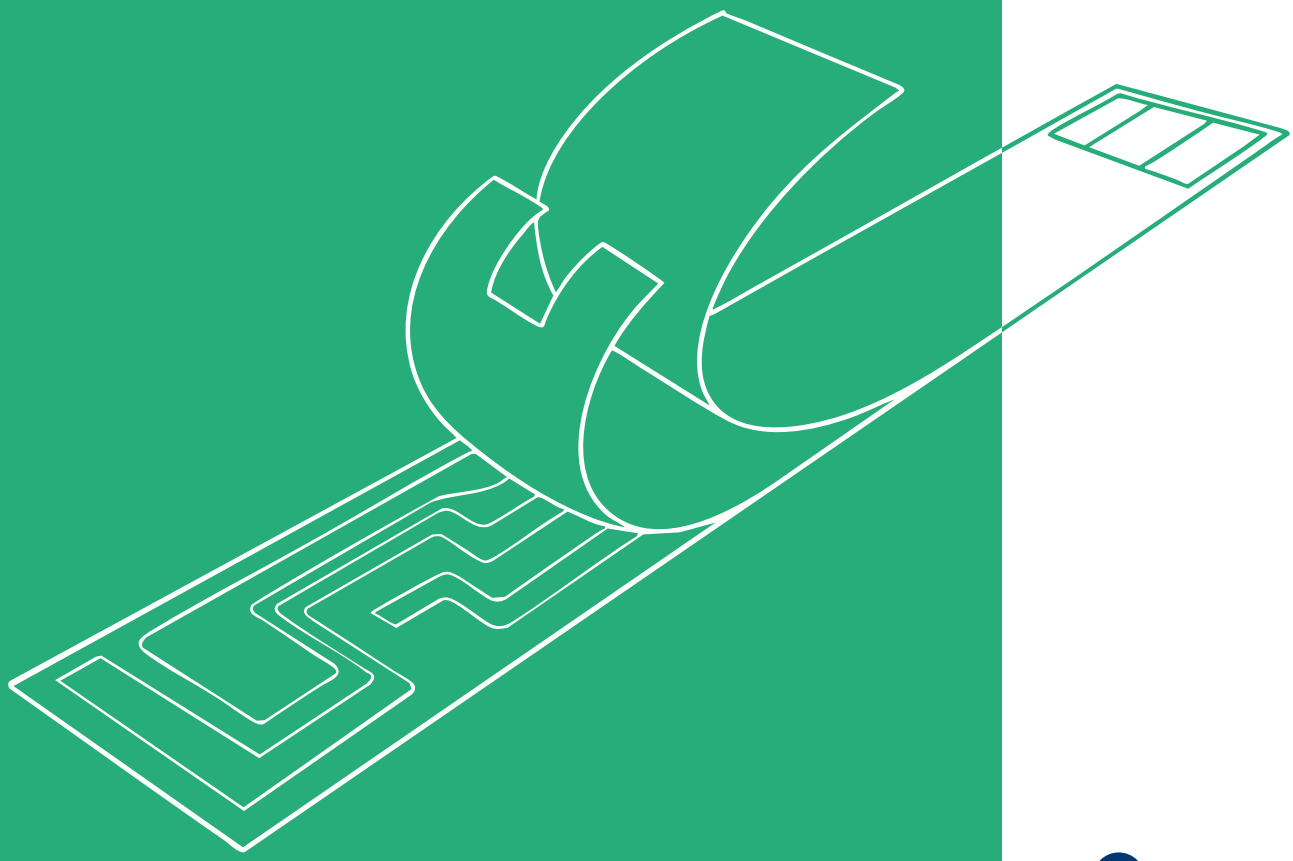
MICROFLUIDIC DIAGNOSTICS

BIOMEDICAL



THE VALUE OF INNOVATION
SINCE 1965

PRODUCT DESCRIPTION AND FEATURES

Kemafoil® HNW / HHNW are advanced hydrophilic polyester films, specifically coated on one or both sides, designed for use in the production of biosensor strips. These films enhance the capillary action of biological fluids, ensuring efficient flow along the strip to the reaction point, while also providing for precise manufacturing.

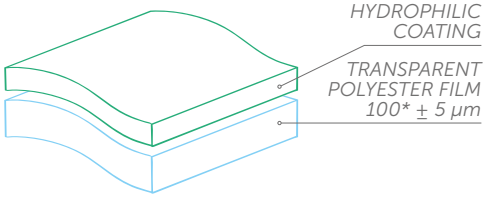
Coveme also offers an eco-friendly version, containing recycled PET (rPET), which maintains the same high performance as the standard product, making it a sustainable choice without compromising functionality.

- Hydrophilicity
- Clear, hazy and white versions available
- One or two sides treated
- No dewetting properties
- Printability
- Non-toxic to mammalian cells
- Dimensionally stable
- Anti-fogging properties
- Available rpet version, lower carbon impact
- Low fluorescence emissions
- Heat stabilized if required

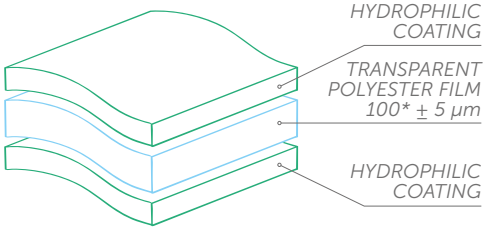
PRODUCT STRUCTURE

Note:
*Different type of PET film and thicknesses available upon customer request.

Kemafoil® HNW



Kemafoil® HHNW



SUPPLY FORMATS

Roll Length	Up to 2200m (2405.9 yd) for standard 100µm PET
Roll width	Min 150mm (5.91 in), Max 2200mm (86.61 in)
Splices per roll	Depending on the final request length
Sheets	Customized upon customer request
Liner	Hydrophilic layer can be supplied with protective Polyolefin liner
Core	152 mm (6-in) in PVC

PRODUCT PROPERTIES

	Method	Unit	Value	
Haze	ASTM D1003	%	≤ 4.0	
Light Transmission	ASTM D1003	%	88-90	
Tensile Strength at break	ASTM D882	kg/mm²	Machine Direction	≥ 17
			Cross Direction	≥ 17
Elongation at break	ASTM D882	%	Machine Direction	≥ 100
			Cross Direction	≥ 90
Shrinkage @ 150°C for 30'	ASTM D1204	%	Machine Direction	≤ 2.0
			Cross Direction	≤ 0.6
Wet Index Value	Internal	-	46-50	

Note: The reported values are referred to a standard film, different films can be used depending on the customer's needs

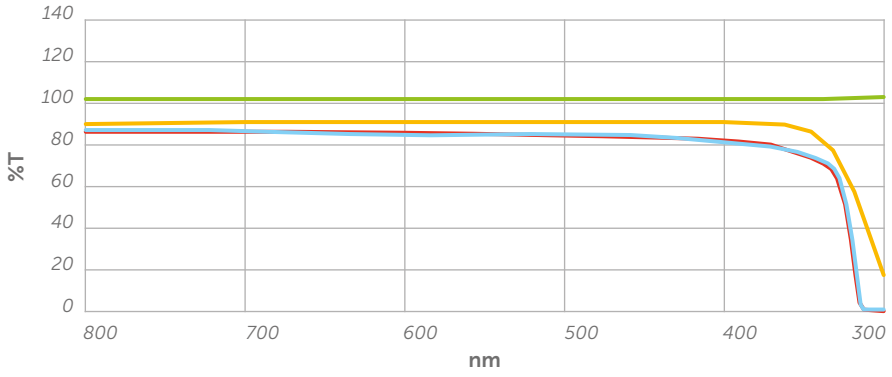
SPECTROSCOPIC CHARACTERIZATION

Product trasmittance and fluorescence properties have been characterized using spectroscopy. Results of a competitor Micro-fluidic Diagnostic Film have been reported as a benchmark.

UV VIS TRANSMITTANCE SPECTRA

- QUARTZ
- BOROSILICATE
- KEMAFOIL® HNW
- BENCHMARK

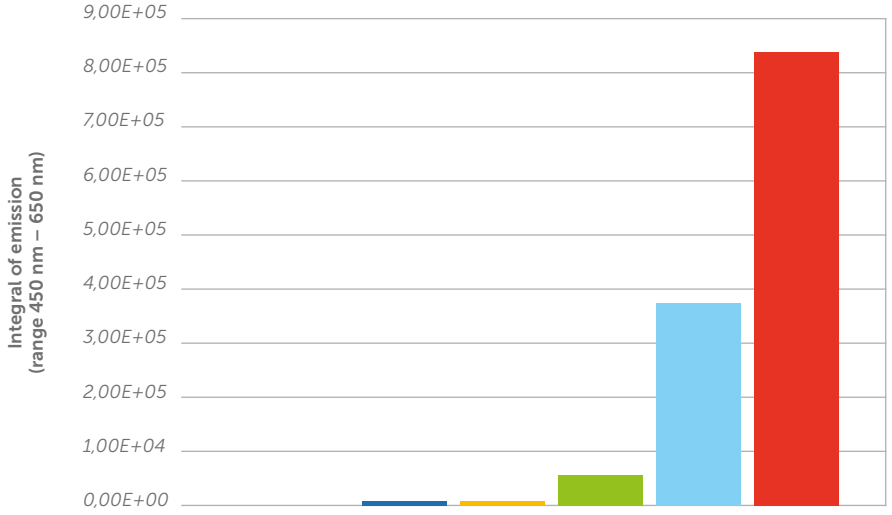
Note: Measurements performed with PerkinElmer UV/VIS Spectrometer Lambda 35



HISTOGRAM OF TOTAL FLUORESCENCE EMISSIONS

- QUININE SULPHATE 10PPB
- QUARTZ
- BOROSILICATE
- KEMAFOIL® HNW
- BENCHMARK

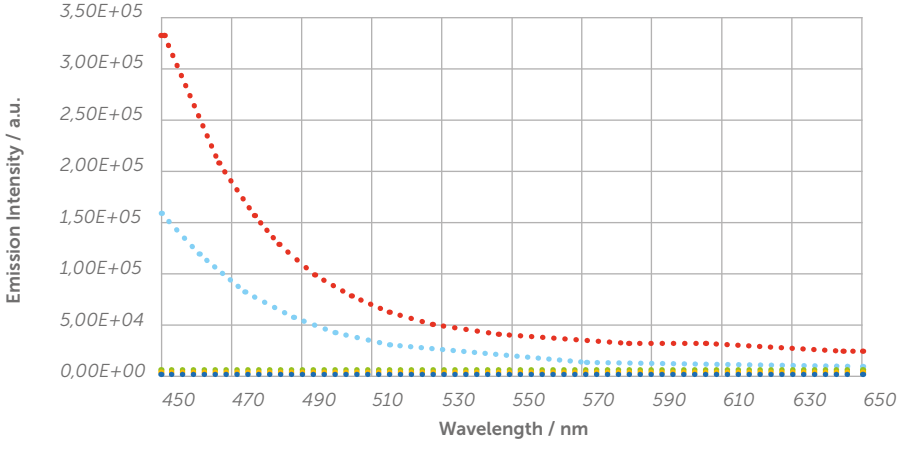
Note: Fluorescence values are normalized in percentage on the Quinine Sulphate, used as a fluorescence standard reference for its high purity and stability. Samples were also compared to other known reference materials, Quartz and Borosilicate.



FLUORESCENCE SPECTRA HYDROPHILIC FILMS

- QUININE SULPHATE 10PPB
- QUARTZ
- BOROSILICATE
- KEMAFOIL® HNW
- BENCHMARK

Note: Emission spectra acquired with an Edinburgh FLS1000 fluorometer, with λexc = 365 nm, range of emission 450-600 nm, front-face geometry. The measurements were conducted by the Department of Chemistry, University of Bologna



RECOMMENDED STORAGE CONDITIONS AND SHELF LIFE

Product as supplied in original packaging will maintain stated test properties for a period of 24 months from manufacturing date stamped on shipping container when stored at temperatures between 10-30° C (50-86°F) and a relative humidity between 30-60 percent. Keep product in original packaging until use.

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ISO 9001: 2015

ISO 14001: 2015

UNI EN ISO 45001:2023

Coveme is certified ISO 9001: 2015 for quality management standards, ISO 14001: 2015 for environmental management and UNI EN ISO 45001:2023 for occupational health and safety.

Coveme has received the Bronze Medal Ecovadis certification as the result of a corporate sustainability performance evaluaton.

Coveme is IATF (International Automotive Task Force) certified as supplier to the automotive industry.

COVEME.COM

BIOMEDICAL

FOLLOW US ON

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