WAXFILM

Laboratory Sealing Film Aids Scientific Research and Improves Experimentation

Introduction to WAXFILM

"Waxfilm" is a thermoplastic material composed of a paraffin-based composite, which exhibits exceptional versatility due to its characteristics including flexibility, waterproofing, odorlessness, semi-transparency, and cohesion. It was first commercialized in the 1930s and initially employed for map preservation. Soon after, it found widespread adoption among laboratory scientists and was utilized in various other applications.

Waxfilm general laboratory sealing film protects your products from moisture. It covers and safeguards the contents of test tubes, beakers, petri dishes, and more. Essential for healthcare, pharmaceutical, and research labs, this film is mainly used to seal and protect containers like test tubes, cuvettes, and petri dishes. Its hydrophobicity also supports applications like electrophoresis gel loading. The film efficiently covers various lab items, ensuring a tight, moisture-proof seal. Odorless, colorless, and semi-transparent, it minimizes data disruption risks. Flexible and self-sealing, it adheres to irregular shapes and surfaces, stretching over 400% of its original length. It withstands exposure to polar substances like salt solutions, inorganic acids, and alkaline solutions for up to 48 hours.

Ordering Information

P/N	WF-662M	WF-665M	WF-666M
Specifications	1in×125ft /2.5cm×38m	2in×125ft /5cm×38m	4in×125ft /10cm×38m

Permeability

Oxygen (ASTM 1927-98) : 150.0067cm³/(m²·24h·0.1MPa) at 30°C.

Carbon dioxide(Modulated IR Method) : 1200cm³/(m²·24h·0.1MPa) at 30°C.

Water vapor(ASTM F1249-01) : 0.5~6.0mg/(m²·24h·0.1MPa) at 30°C.

Low Temperature Tolerance: -80°C

Effects of Common Reagents

Potassium Permanganate:

5%: No significant effect within 18 hours except for permanent deep brown staining
0.1%: Similar to 5% but with slightly less coloration

Iodine Solution (0.1N):

No effect except for brown staining within 18 hours

Ethanol (95%):

Some surface whitening within 24 hours, but no significant effect

No Significant Effect Within 24 Hours:

Hydrochloric acid (12N) dil. (5N) / Sulfuric acid (36N) dil. (5N)
Nitric acid (16N) dil. (5N) / Sodium hydroxide (22%)
Ammonium hydroxide (28% NH_3) / Sodium chloride (NaCl) solution (20%) / Isopropanol (99%)

Note: It's not recommended to use with chlorinated, non-polar aliphatic, and aromatic solvents.
The film becomes soft and tacky at approximately 130 to 154°F (54 to 68°C).

Application in Other Fields

- In horticulture, as a "grafting tape" to graft plants together and prevent drying out.
- In agriculture, as a protective layer on fresh agricultural produce stems such as bananas, to extend their shelf life.
- In art, as a non-stick masking material to protect finishes during painting processes.
- In entomology, used as a membrane for feeding blood-sucking insects such as mosquitoes and bedbugs.
- In medical diagnostics, it serves as a low-cost method for point-of-care diagnostics in developing countries where expensive equipment and tests are not accessible.