

## ABSTRACT

### HYDROPHILIC, HIGH PROTEIN BINDING, LOW FLUORESCENCE, WESTERN BLOTTING MEMBRANE

Hydrophilic membrane particularly suited for blotting applications, preferably Western blotting. A pre-wet hydrophobic membrane substrate, preferably made of PVDF, is contacted with a monomer solution and subjected to a UV-initiated free radical polymerization step to render the substrate permanently hydrophilic. The resulting membrane exhibits low background fluorescence, high protein binding, excellent retention of protein sample spot morphology, and extended dynamic range (high signal-to-noise ratio, enhanced sample detectability). The membrane demonstrates comparable or higher performance in Western blotting applications than conventional nitrocellulose Western blotting membranes, particularly for protein detection at low sample concentrations, and is directly water-wettable, eliminating the need for an alcohol pre-wet step prior to use.

Figure 1