

## CLAIMS

- 1) A water-wettable filtration **membrane** consisting essentially of a microporous sheet of grafted polyolefin where the graft comprises a poloxamer of the structure  $\text{HO}(\text{ethylene oxide})_m\text{-(propylene oxide)}_n\text{-(ethylene oxide)}_m\text{H}$  where  $m$  is in the range 15 to 25 and  $n$  is in the range 50 to 90.
- 2) The membrane of claim 1 where the polyolefin is poly(ethylene).
- 3) The membrane of claim 1 or 2 where  $m$  is 20 and  $n$  is 70.
- 4) The membrane of any one of claims 1 to 3 where the graft comprises a crosslinking agent.
- 5) The membrane of claim 4 where the crosslinking agent has a molecular weight below  $150 \text{ g mol}^{-1}$ .
- 6) The membrane of claim 5 where the crosslinking agent is divinylbenzene.
- 7) A spiral wound filter **assembly** comprising the membrane of any one of claims 1 to 6.
- 8) A **method** of preparing a water-wettable filtration membrane comprising irradiating with UVC light a microporous sheet of poly(ethylene) impregnated with a solution in 30 to 50 % (v/v) ethanol in water of 3 to 5 % (w/v) of a poloxamer, 0.5 to 1 % (w/v) benzophenone, and 0 to 0.5 % (w/v) divinylbenzene where the poloxamer is of the structure  $\text{HO}(\text{ethylene oxide})_{20}\text{-(propylene oxide)}_{70}\text{-(ethylene oxide)}_{20}\text{H}$ .
- 9) A **method** of removing particulates from an aqueous feed stream comprising the step of contacting a side of a membrane of any one of claims 1 or 6 with the feed stream at a pressure sufficient to provide a permeate.
- 10) The method of claim 9 where the pressure is less than 10 bar.