Claims

1. A composite comprising a substrate and an optically transparent resin layer formed on the substrate,

wherein the substrate comprises a woven fabric and a composition layer formed on the woven fabric and comprising tetrafluoroethylene resin and silicon dioxide,

wherein the optically transparent resin layer comprises at least one melt-flowable fluororesin selected from the group consisting of ethylene-tetrafluoroethylene copolymer, tetrafluoroethylene-perfluoroalkyl vinyl ether copolymer, tetrafluoroethylene-hexafluoropropylene copolymer, and polyvinylidene fluoride.

2. The composite according to claim 1, wherein the tetrafluoroethylene resin has an average primary particle size in the range of 0.02 μm to 0.5 μm.

3. The composite according to claim 1 or 2, wherein the silicon dioxide is hydrophilic amorphous silica.

4. The composite according to any one of claims 1 to 3, wherein the silicon dioxide has a specific surface area of 10 m^2/g or more as determined by Brunauer-Emmett-Teller (BET) adsorption isotherm.

5. The composite according to any one of claims 1 to 4, wherein the silicon dioxide has an average primary particle size in the range of 5 nm to 80 nm.

6. The composite according to any one of claims 1 to 5, wherein a weight percent of the tetrafluoroethylene

resin in a weight of the substrate is in the range of 5% by weight to 40% by weight.

7. The composite according to any one of claims 1 to 6, wherein a weight percent of the silicon dioxide in a weight of the composition is in the range of 0.5% by weight to 30% by weight.

~~8. The composite according to any one of claims 1 to 7, wherein the optically transparent resin layer comprises at least one resin selected from the group consisting of ethylene-tetrafluoroethylene copolymer, tetrafluoroethylene-perfluoroalkyl vinyl ether copolymer, tetrafluoroethylene-hexafluoropropylene copolymer, and polyvinylidene fluoride.~~

8~~9~~. A membrane structure comprising the composite according to any one of claims 1 to 7~~8~~.