CLAIMS

1. Carrier element (1; 10; 20) for growth of biofilm thereon, said carrier elements (1; 10; 20) being designed for free-flowing in liquid to be purified and having surfaces (3; 13) for biofilm growth which are protected from the abrasion from other carrier elements or surfaces in a container containing the liquid to be purified by ridges (4) having a height corresponding to a desired thickness of a biofilm intended to grow on the protected surfaces (3; 13) for biofilm growth,

said carrier element (1; 10; 20) is in the form of a plate (10) with a pattern on each side, said pattern forming well defined indentations to protect biofilm growth, and where the depth of said indentations decides the thickness of said protected biofilm, wherein

the ratio between the surface (3; 13) areas between the ridges for biofilm growth and the side area of the ridges ranges from 1:1 to 20:1, and

the height of the ridges (4), which corresponds to the desired thickness of a biofilm intended to grow on the protected surfaces (3; 13), is within the interval of 0.05 - 1.0 mm.

2. Carrier element (1; 10; 20) according to claim 1, wherein the height of the ridges (4), which corresponds to the desired thickness of a biofilm intended to grow on the protected surfaces (3; 13), is within the interval of 0.1 - 0.5 mm.

3. Carrier element (1; 10; 20) according to claim 1, wherein the height of the ridges (4), which corresponds to the desired thickness of a biofilm intended to grow on the protected surfaces (3; 13), is within the interval of 0.15 - 0.45 mm.

4. Carrier element (1; 10; 20) according to any of claims 1 to 3, wherein said plate is of round or oval shape.

5. Carrier element (1; 10; 20) according to any of claims 1 to 4, wherein said plate is saddle shaped.

6. Carrier element (1; 10; 20) according to any of claims 1 to 5, wherein said pattern is in the shape of a grid with square or rectangular indentations.

7. Carrier element (1; 10; 20) according to any of claims 1 to 5, wherein said pattern is in the shape of a honeycomb with hexagonal indentations.