**Apparent Solubility and Hydration Index**

1. Take rectangular pieces of films (1cmx7cm) and store them in a desiccator 72 h before the test.
2. Weight the piece of film (**W1**) and immerse it in 40 mL of distilled water in a tube.
3. Place the tube in a shaking bath at 37 ᴏC at 180 rpm for 5 h.
4. Remove the film from the tube and use filter paper to drain the excess of water.
5. Place the sample in a clean petri dish and weight it again (**W0**).
6. Dry at 25 ᴏC for 48 h in an incubator and weight again (**W2**).
7. Calculate apparent solubility (Wa) and hydration index (Wh) as follows: