

**TITLE:**

**Total Absorptive Capacity for Adult Briefs and Baby Diapers**

**SCOPE:**

This method describes the procedure for determining the total absorptive capacity of adult briefs.

**SAFETY:**

Read the material safety data sheets for all chemicals used in this procedure.

**EQUIPMENT AND MATERIALS:**

1. 1. 2 ring stands with crossbar and clamps
2. 2. Large plastic pan or tub (large enough to hold saline and articles to be tested)
3. 3. Small plastic pan or tub (small enough to be used on a balance, but large enough to contain the wet article)
4. 4. Lab balance accurate to the nearest 0.01 (1000 gram capacity)
5. 5. Timer
6. 6. 0.9% NaCl saline prepared with distilled or deionized water
7. 7. Food dye or equivalent

**PROCEDURE:**

1. 1. Prepare the 0.9% saline by dissolving 45 g of Sodium Chloride into 4955 ml of distilled or deionized water. Blend the saline solution thoroughly.
2. 2. Record the dry weight (grams) of the article.
3. 3. Set the timer for 30 minutes.
4. 4. Place the dry article in a large pan or tub filled with enough saline to completely submerge the article.
5. 5. Start the timer.
6. 6. After 30 minutes have passed, remove the wet article and hang it over the crossbar (in the cross machine direction or at the bi-fold). Set the timer for 10 minutes.
7. 7. Place the small plastic pan or tub on the laboratory balance and zero the balance.
8. 8. After 10 minutes have passed, remove the hanging article and place it into the small pan.
9. 9. Weigh the small pan and hydrated article together. Record the wet weight.

**CALCULATION**

Total Absorptive Capacity (grams) = wet weight - dry weight