REF:TT/ Feb 2012/ WK 2

Evaluation of Hydrogen peroxide in bleaching bath and Fabric after bleaching

Evaluation of H2O2 content in Bleaching Bath:

Permanganometry method:

Reagent Required:

1. Potassium Permanganate (KMNO4)

2. Sulphuric acid (20%)

3. Bleaching bath solution

Procedure for titration:

- The solution of 1-10ml of bleaching bath solution is taken in a flask
- Then add the 10ml of sulphuric acid (20%) in the same flask containing bleach solution.
- Then the mixture is titrated with 0.1N Potassium permanganate.

End point of this titration: **The appearance of pink colour**

Calculation:

The calculation formulas for determination of H2O2 concentration in bleaching liquors (gm/lit or ml/lit) are as follows

If g/lit $$H_2O_2 * \% = \frac{170.073 \cdot V}{F.W}$$

If ml/lit $$H_2O_2 * \% = \frac{170.073 \cdot V}{F.W.p}$$

Where: V-consumption in ml of KMNO4 (0.1N)
F- Taken quantity of bleaching liquor in ml
P-Density of H2O2 sol.
W-% by weight of H2O2 Sol.

Evaluation of H2O2 content in Bleached Fabric:

Determination of H202 Content on the fabric with test rods:

- Take test rods says peroxide stick,
- Press over the Bleached fabric for few seconds
- Take out the test rods compare the colour change against standard scale.
- Depending on the blue dyeing of the rods, the value of 0-25 mg/lit of H2O2 is read off.

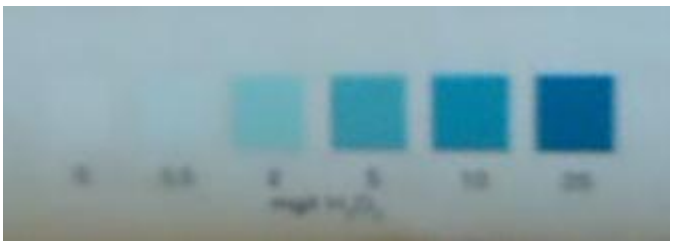

Fig: Standard scale

Have a happy week ahead”