

11. What is a mercerizing?

Ans: It is a treatment for cotton articles and/or natural fibers composed by cellulose in a concentrated solution of caustic soda (300 g/l), under tension and ambient temperature.

12. Write down the mercerizing process parameters.

Ans: The mercerizing process parameters are:

i) Twaddle (Concentration of NaOH):

If the concentration of NaOH is increased above 56 degree Tw improvement in luster will be attained but if it is decrease below 48 degree Tw. The quality of luster will begin to be adversely affected.

ii) Temperature:

High degree of luster is attained at temperature 18-20 degree C. As the temperature is increased the quality of luster is adversely affected but on lowering the temperature no improvement in the luster is obtained.

iii) Tension:

For acquiring better luster the material must be stretch to its original dimension (both in warp and weft direction during mercerization). If the material is allowed to shrink during mercerizing then quality of luster will be impaired on the other hand if the material is stretched more no improvement in luster is achieved.

iv) Time:

The optimum time for mercerizing is 30-60 seconds by increasing the duration of time no applicable improvement in the quality of mercerization can be achieved but if the time limit is less than 30 seconds in the quality of mercerization will be improved.