

Technical Information Dyeing with Dikaphor SA Liq.

Dikaphor SA Liq. is widely used in dyeing due to their excellent whitening effect and good fastness properties.

The following information is a precaution to have the maximum result in dyeing with Dikaphor SA Liq.

pH sensitivity

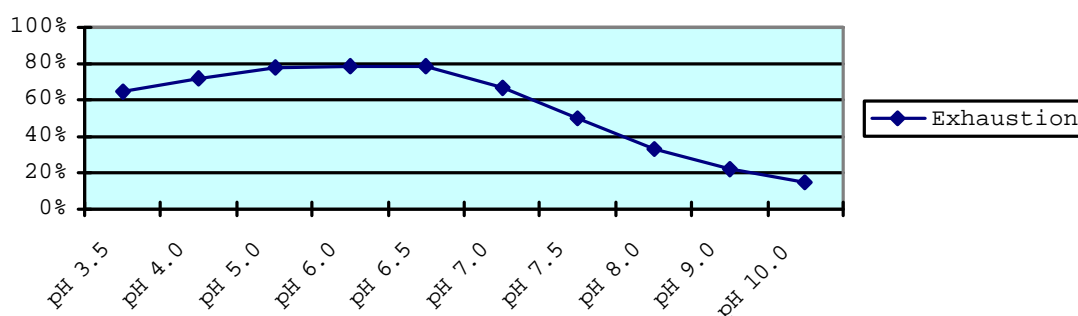
The best pH range in dyeing is 5-6 and it is recommendable to maintain this pH condition in dyeing stage with Acetic acid or Formic acid.

When pH is lower than 4, dyestuff will precipitate and when pH is higher than 8, dye absorption will also down rapidly.

Please refer to the following chart concerning **Effect of pH**

	pH 3.5	PH 4.0	Ph 5.0	Ph 6.0	pH 6.5	pH 7.0	pH 7.5	pH 8.0	pH 9.0	pH 10.0
Exhaustion	65%	72%	78%	79%	79%	67%	50%	33%	22%	15%

pH = Changing with Acetic acid



L:R = 1 : 50

Dyeing Temp. x Time = 60°C x 20min.

Temperature sensitivity

The best dyeing temperature is 60-80°C.

Over 90°C, shade/hue will become slightly redder and whiteness may come down and if dyeing temperature is low, dye absorption is poor.

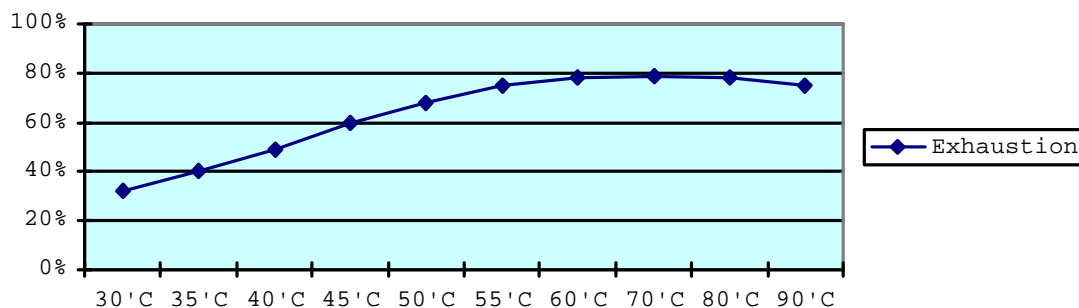
Please refer to the following chart concerning **Effect of Temperature**

	30°C	35°C	40°C	45°C	50°C	55°C	60°C	70°C	80°C	90°C
Exhaustion	32%	40%	49%	60%	68%	75%	78%	79%	78%	75%

Temperature = Changing

pH = 6 (adjusted with Acetic acid)

L:R = 1 : 50, Dyeing time = 20 min.



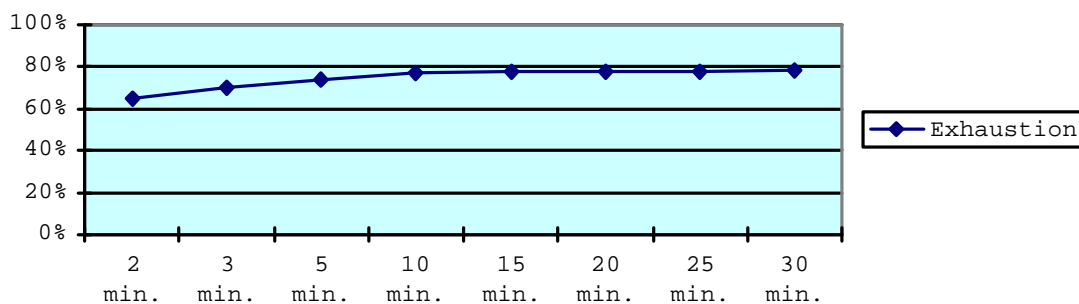
Dye absorption time

Dikaphor SA Liq. is moderate - high affinity type Optical Brightening agent and dyestuff will be taken up in 5 - 10min. under the best dyeing condition.

To avoid unlevelled dyeing result, it is recommendable to add dyestuff in portion or raise the dyeing temperature gradually.

Please refer to the following chart concerning **Effect of Dyeing time**

	2 min.	3 min.	5 min.	10 min.	15 min.	20 min.	25 min.	30 min.
Exhaustion	65%	70%	74%	77%	78%	78%	78%	78.5%



Time : Changing

pH = 6 (adjusted with Acetic acid)

L:R = 1 : 50, Dyeing temperature = 60°C

Stability to bleaching chemicals

Dikaphor SA Liq. has very good stability to reduction chemicals like Hydrogen Peroxide or Sodium hydrosulfite.

So, Dikaphor SA Liq. can be used in bleaching/whitening under one bath method but, processing condition to be followed as above.