TECHNICAL TUESDAYS

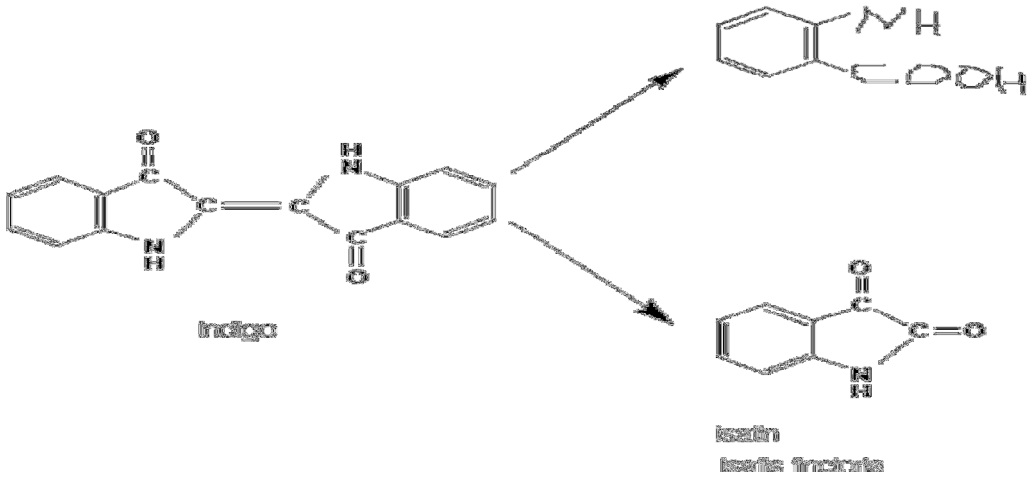
TOPIC: Anti-Ozone Softeners

REF: TT/ FEB 2016/ WK 4

Introduction:

The yellowing of indigo dyed denim is due to the exposure to Ozone, which oxidizes indigo to oxidation products: Isatin and Anthranilic acid.

1 gram of Ozone can destroy 10 grams of indigo dye



Causes of Ozone fading:-

- The greater the back staining, the greater is the ozone fading.
- High humidity gives rise to a surface water film that increases the Ozone absorption rate.

Ways to Reduce Ozone fading:-

Temporary remedies:-

- Conventional anti-oxidants such as Sodium Bisulfite provide short-term protection against ozone fading.
- These anti-oxidants undergo rapid chemical decomposition and doesn't provide protection when garments are stored for long periods or in the presence of a high concentration of Ozone.

Permanent remedies:

- Amine-based softeners – provide good protection to denim garments.
- These Amine-based softeners are applied in substantially large quantities in comparison to anti-oxidants.

Resil's packages with processes for Anti-Ozone Softeners:-

Desize Process:

Ezysize 3XXL:1%
Ezycare MaxClean:0.5%
Resil EBC:0.5%
pH:6-7
Time /Temp:20mins/55°C

Enzyme process:

Ezycare NEU:1%
Ezycare MaxClean:0.5%
Resil EBC:0.5%
pH:6-7
Time /Temp:40mins/55°C then Rinse wash

Hypo Bleach:

Hypo Bleach 10gpl at 50°C/1hr (for Light Shade)->Ezycare CBS+ Ezycare Max Clean 1+1gpl for 10min at RT->Neutralize by SMS 5 gpl at RT for 10min->Hydrogen Peroxide 5gpl at RT For 10mins ->Perox Conc 1gpl->at RT for 15mins->Ezycare Max Clean 1gpl at RT/5 mins -2 cold rinse

->Followed by Anti-ozone Finishing.

Resil NTO3-1%
pH : 5.5
Time : 30mins
Temp: 40°C
Half hydro followed by Line Dry/Tumble dry at 60°C

Wishing you a great week ahead!

Technical Tuesdays is a knowledge sharing initiative by Resil Chemicals Private Limited

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