

A photograph of several spools of thread in various colors (red, orange, yellow, blue) arranged in a row. The spools are slightly out of focus, with the blue spool in the foreground being the sharpest. The background is dark and blurred, suggesting a workshop or dye house environment.

**Naturub Group**

**SOFTWARE REQUIREMENT  
SPECIFICATION**

*Dye House*

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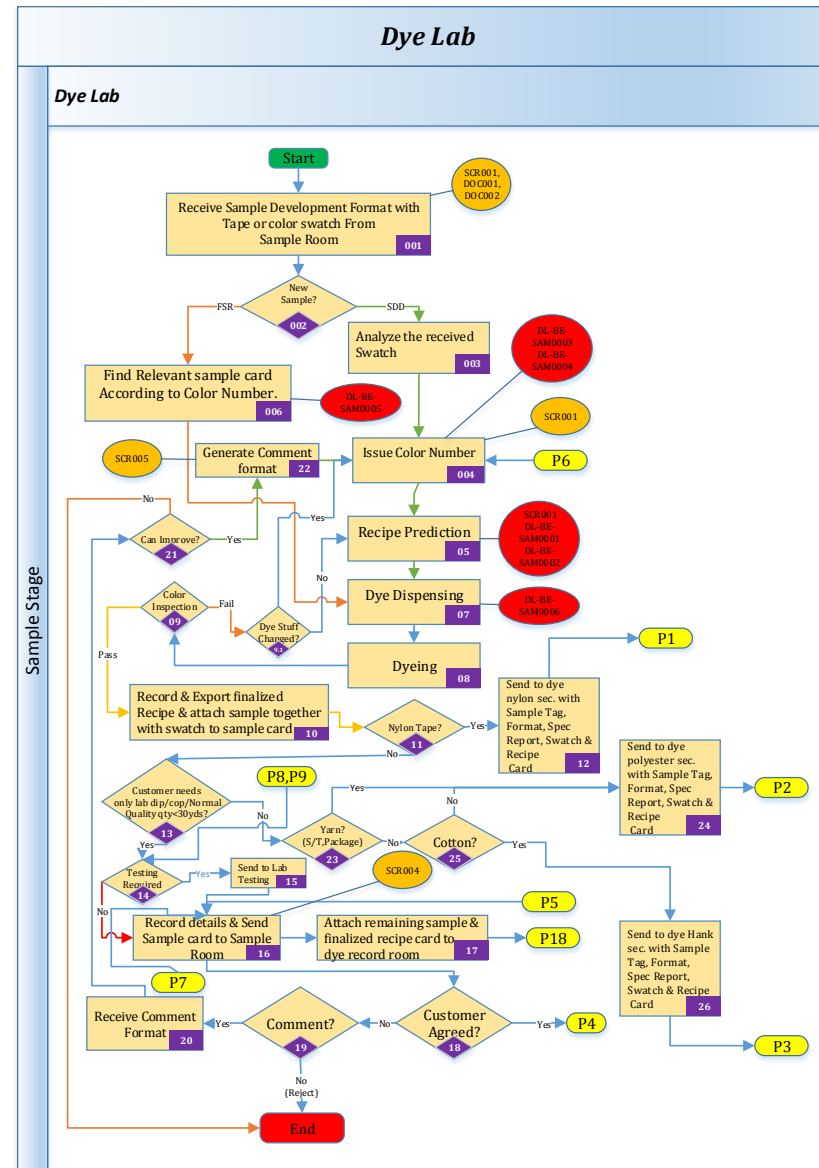
# 1 References

DL – S0001	<p>“DL”: - Short form of the <b>Dye LAB</b></p> <p>“DH”: - Short form of the <b>Dye House</b></p> <p>“S”: - Short form of the <b>S</b>creen.</p> <p>“0001”: - field number.</p>
DL – BE0001	<p>“DL”: - Its mean is above.</p> <p>“BE”: - Short form of the <b>B</b>usiness <b>E</b>xpectations.</p> <p>“0001”: - Expectation Number</p>
DL – RE0001	<p>“DL”: - Its mean is above.</p> <p>“RE”: - Short form of the <b>R</b>eport <b>E</b>xpectations.</p> <p>“0001”: - Expectation Number.</p>

<b>M</b>	Must Have
<b>S</b>	Should Have
<b>C</b>	Could Have
<b>W</b>	Won't Have

## 2 Process Flow Chart of Dye Lab

### 2.1 Dye Lab Sample Process



### 2.1.1 Activity Flow of Dye Lab Process – Sample Stage

	Activities	M	S	C	W
001	Receive sample development format with color swatch or raw tape from the sample room. {SCR001}, {DOC001}, {DOC002}		X		
002	Check whether the sample is new development or previously developed sample.		X		
003	If the sample is a new development, analyze the received swatch.		X		
004	<p>Issue color number {SCR001}</p> <p>Ex: <b>TNC 19-3682B</b></p> <p>Color Number Issuing Process</p> <p><b>TN</b> – Relevant dye section</p> <ul style="list-style-type: none"> <li>• TC - Tape Dye Cotton</li> <li>• TN - Tape Dye Nylon</li> <li>• TP - Tape Dye Polyester</li> <li>• YC - Yarn Dye Cotton</li> <li>• YN - Yarn Dye Nylon</li> <li>• YP - Yarn Dye Polyester</li> <li>• SN – Sewing Thread Nylon</li> <li>• SP – Sewing Thread Polyester</li> </ul> <p><b>C</b> – Dye Range</p> <ul style="list-style-type: none"> <li>• C – Clariant</li> <li>• L –Luminous</li> <li>• B – Low price dye</li> </ul> <p><b>19</b> - Current Year</p> <p><b>3682</b> – Sequence Number</p> <p><b>B</b> – Color Option (If the given option is rejected by the customer the next option will be given by the next character as A, B, C, etc.</p> <p>{DL-BE-SAM0001}, {DL-BE-SAM0002}</p>		X		
005	<p>Recipe Prediction. [P6]</p> <p>Scan the swatch from spectrometer {DL-BE-SAM0004}</p>		X		

	<b>** Recipe re-prediction.</b> <ul style="list-style-type: none"> <li>If the customer rejected the sample and required any improvement in dye stuff, color number will be changed accordingly. {DL-BE-SAM0003}</li> </ul>				
006	If it is an FSR, find relevant sample card from dye lab according to color number & provide relevant data for dye dispensing process.		X		
007	Issue the decided recipe to dye dispensing machine & dispense required dye stuff for dye pot. {DL-BE-SAM0006}		X		
008	Dyeing process		X		
009	Color inspection by Supervisor → QC → Section Head/Dye manager		X		
09.1	If fail then check whether the dye stuff changed or not. If changed then reprocess after issue a new color number & if not changed then reprocess from recipe prediction stage.		X		
010	If color inspection passed, record & export finalized recipe and attach manager approved sample and swatch to the sample card.		X		
011	Check whether the sample is a nylon tape or not,		X		
012	If the sample is a nylon tape, send to the dye nylon section for continuous dyeing process to confirm whether the color can be matched as the sample along with sample tag, format, spec report, and swatch and recipe card. [P1]		X		
013	Check whether the customer needs only lab dips/cops/normal quality & qty less than 30 yards		X		
014	Check whether testing required or not? [P8, P9]		X		
015	If testing required, Sample will be sent to testing lab.		X		
016	Send the sample card to the Sample Room {SCR004} [P5] [P7] {DL-BE-SAM0007}		X		

017	Attach remaining sample and send finalized recipe card to dye record room [P18]		X		
018	Check whether the customer agreed with the sample provided. If the customer agreed, send the PO to approved sample and proceed for date entering process. [P4]		X		
019	If customer rejected the sample check whether there are any comments from the customer?		X		
020	Receive comment for the relevant rejected format from the customer		X		
021	Check whether the sample can be improved or not. If further improvements cannot be done, the process will be end.		X		
022	If the sample can be improved, sample room will generate comment format based on relevant rejected format [SCR005]		X		
023	If customer required yardage (sample qty is greater than 30 yards) sample, check whether it's a sewing thread sample.		X		
024	If it is a sewing thread sample, send the sample to Dye polyester section [P2]		X		
025	If the sample is not a sewing thread sample, check whether the sample is a cotton item. <b>if not</b> (Polyester Tape), send the sample to Dye polyester section		X		
026	If the sample is not a sewing thread sample, check whether the sample is a cotton tape. <b>if it is a cotton tape</b> , send to dye hank section for winding processes [P3]		X		



## 4 User Expectations

Requirement Type	Point Number	Function – Feature - Requirement	M	S	C	W	Comments	Screen Reference
	<b>4.1 Business User Requirements – Sample Level</b>							
	DL-BE-SAM0001	Color number should be generated automatically. Methodology will be given by the dye lab.  Proposed methodology for color number as follows E.g. T100A-001 If the customer rejected that color, next option will be T100A-002		X				
	DL-BE-SAM0002	Required facility to map Naturub color number against pantone color number, archroma number, L brand etc. with item category. (Lingerie jacquard, woven elastic, etc.)		X				
	DL-BE-SAM0003	Required facility to edit color number when customer rejected the sample and required any improvement in dye stuff.		X				
	DL-BE-SAM0004	Required facility to search Naturub color number by item category, pantone color, archroma color and L brand etc.		X				
	DL-BE-SAM0005	If it is FSR, need to auto fill the color number same as in the <a href="#">FSR</a>		X				

	DL-BE-SAM0006	Required to print recipe card by selecting a SDD or FSR. Following details need to be included in the recipe card <ul style="list-style-type: none"> <li>• Customer</li> <li>• Sales Rep</li> <li>• Light Source</li> <li>• Item</li> <li>• Plan Start and end date</li> <li>• Quantity etc.</li> </ul>		X				
	DL-BE-SAM0007	Control(block) dispatch from dye lab to sample room without entering the sample technical data (currently using separate screens for dispatch & technical data entering)		X				
	DC-BE-SAM0008	Display the yarn category with item description in sample format (Warp, Weft, Inner Code yarn details)		X				
	DP-BE-SAM0008							
	DN-BE-SAM0008							
	DP-BE-SAM0009	Auto send requisition to relevant section when print the tag card		X				
	DF-BE-SAM0010	Give finishing technical data entering facility to finishing section (at present technical data enter by sample room)		X				
	DF-BE-SAM0011	Give sample dispatch facility to sample room		X				
<b>4.2 Business User Requirements – Bulk Level</b>								
	{DC-BE-BUL0001}	Need a facility to view reserved raw by marketing coordinator for the relevant job (reserved raw needs to be released after a decided period by the management) Need a facility to view the dye and chemical availability. In planning board, required following sort options <ul style="list-style-type: none"> <li>• By color (same color jobs will appear together)</li> </ul>		X				

		<ul style="list-style-type: none"><li>• By yarn category (Warp, Weft, etc.)</li><li>• By Job Number</li><li>• Winding type</li></ul> Display yarn winding type (Package, Hank, Bullet) If SFG is reserved for a particular order, display the assume delivery date for SFG to the dye cotton section If a bulk sample is required, Plan the bulk sample separately. Need a facility to transfer the job to a capable section where the color can be achieved successfully before starting the planning process Need a facility to transfer the job to a capable section if the job originally planned section cannot achieve the expected color (E.g. Nylon tapes to cotton section)						
	{DC-BE-BUL0002}	PO Confirmation lead time needs to established		X				
	{DC-BE-BUL0003}	WO and tag card will be replaced by planning schedule for Cotton (Hank) and Polyester (HT HP).		X				
	{DP-BE-BUL0004}	Need a facility to enter WPM before issue the SFG to dye floor If reserved quantity is not enough due to WPM change, need a facility to request more semi-finished or request for re-work. Need a facility to return semi-finished goods to semi-finished goods stores (If received raw is damaged) Planning strip needs to be highlighted or need to hold the plan at a situation as such.		X				
	{DP-BE-BUL0005}	Facilitate to enter the weight per yard of tape batch wise.		X				
	{DW-BE-BUL0006}	Need a facility to indicate and display the dye and chemical which are at re-order level and need an option to request required dye and chemical on the same screen upon the indication.		X				
	{DP-BE-BUL0007}	Receive yarn from soft wind stores with a chit (Total quantity, Item, Color, Plan number)		X				
	{DP-BE-BUL0008}	Give separated screens for end recipe & dyed goods dispatch		X				
	{HW-BE-BUL0009}	Yarn consumption calculation facility through the system (at present consumption calculate manually using excel)		X				
	{HW-BE-BUL0010}	Label print facility through the same system with including (Yardage, count, Operator, Color no., Machine No.)		X				

	{HW-BE-BUL0011}	Goods Return & Goods Dispatch facility should be done through one system		X				
	{SW-BE-BUL0012}	Filter Items according to the selected stores category in requisition screen		X				
	{SW-BE-BUL0013}	Request Goods facility from raw material store with including the waste percentage		X				
	{DF-BE-BUL0014}	Facilitate to plan finishing jobs for bucket type & print facility of planning schedule of job		X				
	{DF-BE-BUL0015}	Request raw facility today from SFG store for next day jobs		X				
	{SW-BE-BUL0016}	Give facility to machine wise job planning		X				
	{ST-BE-BUL0017}	Facilitate to reprint the printed tag card (print facility only for selected tag card)		X				
	{ST-BE-BUL0018}	Facilitate to accept (not using in current system) & dispatch customer returns through one system		X				
<b>4.3 Reporting, Data Requirements</b>								
		Required Stock Transaction report - for selected time period		X				
		Required to monitor Nonmoving report / slow moving/ fast moving items and facility to report		X				