Harisol Liquid Dyes

FURNISH:
1. White pulp
2. 100%Mixed waste

PH - In tap water 7.0 - 7.5
(Addition of 0.5% Alum)

Dyestuff added - HARISOL Liquid dyes

Storage

- the dyes should ideally be stored at room temperature
- if frozen, because they have been stored at a temperature below 0°C, they should be thawed slowly and stirred if necessary.

Also available in powder

Stock solutions

Stock solutions should be made up with soft water only . If no soft water is available, the stability of stock solutions can be tested in the laboratory after ascertaining the available water quality. If stock solutions are unstable on account of hard water, stability can be improved by a sequestrant, (preliminary trials in the laboratory are required). Stock solution containers must be thoroughly cleaned with water before re-use to avoid bacterial growth.

HARISOL LIQUID DYES ARE CATIONIC IN NATURE.

APPLICATION RECOMMENDATIONS

Cationic dyes

Before adding these dyes, it is advisable to neutralize troublesome

anionic trash with cationic fixatives or aluminum sulphate. Cationic dyes are highly suitable for continuous application on account of their positive charge and associated more rapid uptake.

Stock addition

To avoid mottling, care should be taken to ensure rapid, thorough mixing with the stock. Careful preliminary diluting reduces the tendency to mottling. In continuous addition, the dye should be diluted with fresh water (constant pressure) shortly before addition. Agitation of the stock should be vigorous to ensure rapid, thorough mixing. To avoid trouble when adding, it is advisable to place a strainer with a large surface in front of the dispensing equipment. The dispensing pump should be thoroughly rinsed each time the shade is changed. Old stock solutions can cause dispensing problems if not filtered and they should be checked before use.

PROPERTIES OF THE COLORANTS

Backwater coloration

Gray scale: 1 = marked coloration 5 = colorless

Unsized (for information on affinity for the fiber) and pseudo neutral sized (fixation by aluminum sulphate) papers were tested. In pseudo neutral sizing, the dissolved, unfixed anionic dye is precipitated in the stock mixture by the aluminum sulphate addition. The resulting color precipitates must be retained on the paper machine during sheet formation. However, the backwater is usually clear. High pigment build-up can increase colored two-sidedness in bulk working.

Light fastness

Light fastness (Xenotest) is tested on sized papers at 0.2 RD in accordance with ISO 105-B02 (under normal conditions) and assessed against the blue scale, which is exposed to light at the same time.

1 = poor, 8 = outstanding

Ratings:

Water Coloration;
1 - Strong.
2 - Distinct.
3 - Moderate.
4 - Good.
5 - Uncolored.

Bleed Fastness
1 - Severe Bleeding
5 - No Bleeding

Reduction (hydrosulphite)

The stock is dyed then poured into a plastic vessel and heated to 50°C in a water bath. Borax and sodium hydrosulphite (0.66% analytical grade borax, 1% sodium hydrosulphite 85% on the weight of dry pulp) are then added. The vessel is closed and left to stand for 45 minutes at 50°C in the water bath, during which period it is shaken several times. After sheet formation and drying, loss of color strength is determined by comparison with the untreated, dyed control. Assessment of bleachability :
1 = not bleachable, 5 = sample almost white highly bleachable.

CIELab Color Chart.

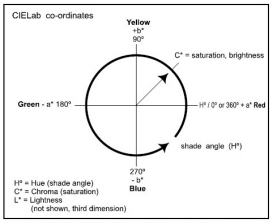
The CIELab Color Chart in the pattern card show how the dyes are colorimetrically classified in the systems mentioned. The color co-ordinates depend on the shade depth.

Note:
Prevent contact with any body parts. Refer MSDS

Liquid Dyes:
- Store in cool place preferably at 20-25° c.
- Protect from sunlight. Store in shaded area.
- Do not leave dyestuff solutions for long time .
- Use plastic or stainless steel tanks for solution preparation.
- Shelf life- 12 months.
- Dye solutions must not come in to contact with Copper/ iron or Zinc during storage/ handling.
- Do not mix different dyes.
- Dyes solutions to be prepared at highest possible dilution for the addition to the furnish.

CIELab Color Chart.

The CIELab Color Chart in the pattern card show how the dyes are colorimetrically classified in the systems mentioned. The color co-ordinates depend on the shade depth.



CIELab Color Chart shows our range of the colors for paper

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ISOQAR REGISTERED 0026 — UKAS MANAGEMENT SYSTEMS 0026

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HARISOL LIQUIDS		Physical Data			Fastness Properties		
1.0%	1.0%	Density ca.g/cm³	PH undiluted	Viscosity 25°C mpa.s.	Light	Water	Back Water
White Pulp	100% Mixed Waste Pulp						
HARISOL YELLOW S		1.0 - 1.2	2.5 - 3.5	<=100	1 - 2	3 - 4	3 - 4
HARISOL YELLOW G		1.0 - 1.2	2.5 - 3.5	<=100	1 - 2	3 - 4	3 - 4
HARISOL BROWN G		1.0 - 1.2	2.5 - 3.5	<=100	1 - 2	3 - 4	3 - 4
HARISOL ORANGE HR		1.0 - 1.2	2.5 - 3.5	<=100	1 - 2	3 - 4	3 - 4

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1.0%	1.0%	Density ca.g/cm³	PH undiluted	Viscosity 25°C mpa.s.	Light	Water	Back Water
HARISOL RED GTL		1.0 - 1.2	3.0 - 4.0	<=100	1 - 2	3 - 4	3 - 4
HARISOL BRILL. RED GRL		1.0 - 1.2	2.5 - 3.5	<=100	1 - 2	3 - 4	3 - 4
HARISOL PINK B		1.0 - 1.2	3.0 - 4.0	<=100	1 - 2	3 - 4	3 - 4
HARISOL BRILL. RED 4G		1.0 - 1.2	3.0 - 4.0	<=100	1 - 2	3 - 4	3 - 4
HARISOL RED 2BL		1.0 - 1.2	3.0 - 4.0	<=100	1 - 2	3 - 4	3 - 4

HARISOL LIQUIDS		Physical Data			Fastness Properties		
1.0%	1.0%	Density ca.g/cm³	PH undiluted	Viscosity 25°C mpa.s.	Light	Water	Back Water
HARISOL BLUE B		1.0 - 1.2	3.0 - 4.0	<=100	1 - 2	3 - 4	3 - 4
HARISOL BLUE GRL		1.0 - 1.2	2.5 - 3.5	<=100	1 - 2	3 - 4	3 - 4
HARISOL VIOLET RL		1.0 - 1.2	2.5 - 3.5	<=100	1 - 2	3 - 0	3 - 4
HARISOL VIOLET BC		1.0 - 1.2	2.5 - 3.5	<=100	1 - 2	3 - 0	3 - 4
HARISOL VIOLET EH		1.0 - 1.2	2.5 - 3.5	<=100	1 - 2	3 - 0	3 - 4

HARISOL LIQUIDS		Physical Data			Fastness Properties		
1.0%	1.0%	Density ca.g/cm³	PH undiluted	Viscosity 25°C mpa.s.	Light	Water	Back Water
HARISOL BLUE 6GX		1.0 - 1.2	2.5 - 3.5	<=100	1 - 2	3 - 4	3 - 4
HARISOL GREEN G		1.0 - 1.2	2.5 - 3.5	<=100	1 - 2	3 - 4	3 - 4
HARISOL GREEN MY		1.0 - 1.2	2.5 - 3.5	<=100	1 - 2	3 - 4	3 - 4
HARISOL BLACK CMS 5.0%		1.0 - 1.2	2.5 - 3.5	<=100	1 - 2	3 - 0	3 - 4
HARISOL BLACK VMS 5.0%		1.0 - 1.2	2.5 - 3.5	<=100	1 - 2	3 - 0	3 - 4