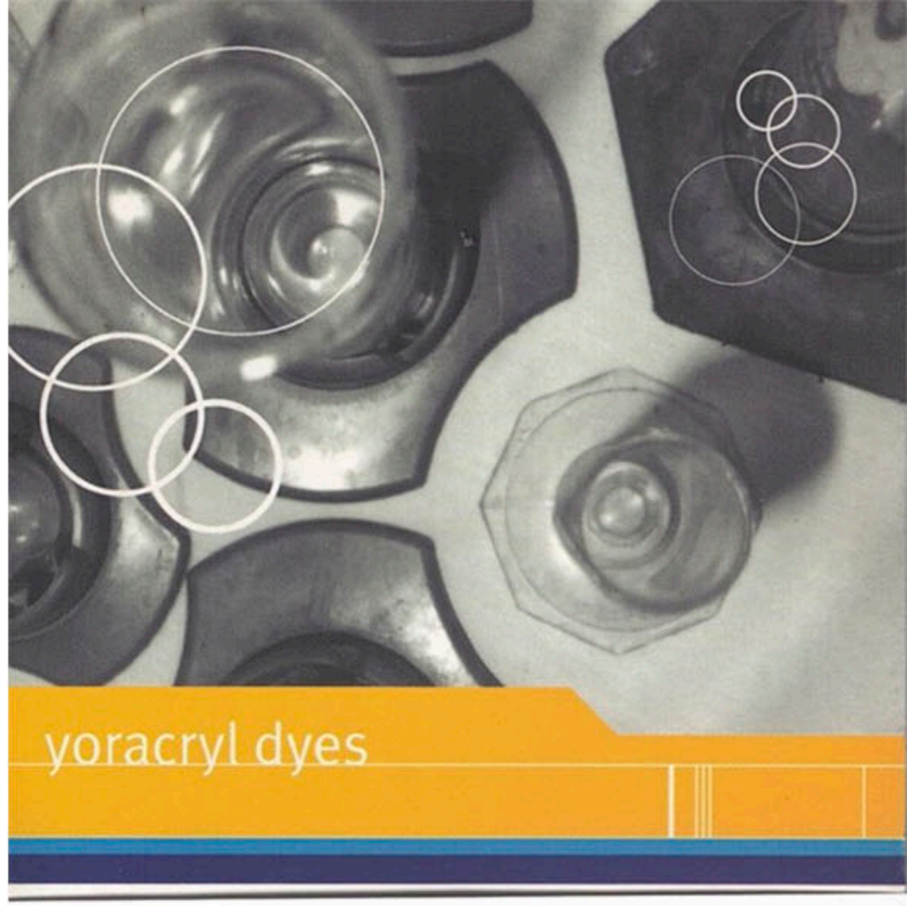
yoracryl dyes

		Yellow 8G 200	Yellow 7G	Yellow 7GN liquid	Yellow 2GL 200		Yellow 3G 300	Yellow RL 200	Orange ARLS 400	Yellow Brown G	Red B 200	Red 4G 300	Red AGL 300	Red BGL 180	Red 2G 200 Grains
% Dyestuff		0.54	1.20	1.20	0.60		0.36	0.45	0.38	0.45	0.36	0.30	0.40	0.33	0.36
Other powder formulation (ZF = Zn free, Grn = Grains)		-	-	-	300		-	400	-	-	-	-	100	-	-
Liquid Formulation		-	100	-	100,150		100	200	100	40	200	200	100	100	100
Compatibility Value (cv)		3.5	3.0	3.0	2.5		3.0	3.0	1.0	3.0	2.0	3.0	1.5	2.5	3.0
Saturation factor (f)*		0.83	0.25	0.25	0.34		0.67	0.52	0.52	0.64	0.30	0.81	0.80	0.72	0.74
Light fastness B02 Xenotest		5-6	6-7	6-7	6-7		5-6	6-7	4-5	7	3-4	3-4	6-7	6-7	6-7
Perspiration E04 test	Change of shade	5	5	5	5		5	5	5	5	5	5	5	5	5
PH8	Stain on PAC	5	5	5	5		5	5	5	5	5	5	5	5	5
Steaming P02	Change of shade	5	5	5	5		5	5	5	5	5	5	5	5	5
10' 10psi	Stain on PAC	5	5	5	5		5	5	5	5	5	5	5	5	5
Reservation	PAC/WO	5	5	5	4-5		5	4-5	4-5	4	5	5	3-4	4-5	4
	PAC/CO	5	5	5	5		5	5	5	4	4-5	4-5	4-5	4-5	4
	PAC/PA	5	4-5	5	5		5	5	4	3	4-5	4-5	3	4	3
	PAC/PES	5	5	5	5		5	5	4-5	4	5	5	5	5	3-4
	PAC/CA	3-4	3-4	3-4	3-4		5	3-4	2-3	3	2-3	3	3	3-4	2-3
Dischargeability (SnCl2)		I	I	X	I		I	I	I	D	I	I	X	X	D

* Saturation factor only applies to the titled and illustrated dye.

Abbreviations

Wo	Wool
Co	Cotton
PA	Nylon
PES	Polyester
CA	Acetate

Rubine R 200	Violet 3R	Blue 5G 200	Blue RGL 300	Blue 2RGL 200	Green B	Navy 2RW	Black BLC Liquid	Black FBL 200		Black LNI liquid	Black V liquid	Black VSN liquid	Black WRN		
0.36	0.23	0.42	0.30	0.44	0.20	0.70	4.50	2.70		4.50	4.50	5.80	5.00	% Dyestuff	
-	-	-	300zf grn	-	-	-	-	-		-	-	-	-	Other powder formulation (ZF = Zn free, Grn = Grains)	
-	100	-	200	-	50	-	-	-		-	-	-	-	Liquid Formulation	
3.5	1.5	3.5	3.5	3.0	2.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	Compatibility Value (cv)	
0.52	0.50	0.62	0.90	0.33	0.69	0.77	0.54	0.64		0.45	0.40	0.34	0.41	Saturation factor (f)*	
6-7	4	4-5	6-7	6-7	3	4-5	5-6	6-7		5-6	5-6	6-7	5-6	Light fastness B02 Xenotest	
5	5	5	5	5	5	5	5	5		5	5	5	5	Change of shade	Perspiration E04 test
5	5	5	5	5	5	5	4	4-5		4	4-5	4-5	4	Stain on PAC	PH8
5	5	5	4-5	4-5	4	5	4-5	4-5		5	5	4-5	4-5	Change of shade	Steaming P02
5	5	5	5	5	5	4-5	4	4-5		4	4	4-5	4	Stain on PAC	10' 10psi
4	5	4-5	4	4-5	4-5	4	3-4	2		2	4	3	1-2	PAC/WO	Reservation
4	4-5	4-5	4	4-5	4-5	4-5	4	2-3		2	4	3	1-2	PAC/CO	
3	4	3-4	3	4-5	4	3	4	1-2		1-2	3-4	2	1-2	PAC/PA	
3-4	5	4-5	4	5	4-5	5	4	2-3		2	4-5	2-3	2	PAC/PES	
2-3	2-3	3	3	2-3	2-3	2-3	2	2		2	2	2	1-2	PAC/CA	
D	I	I	D	X	X	X	X	X		X	X	X	X	Dischargeability (SnCl2)	

Explanation Of Tables

This folder illustrates self shades of the current Yoracryl basic dyes on Acrylic fibre. The self shade dyeings approximate to 1/1 standard depths or NB/DK for navy blue and B/DK for blacks. A general dyeing method is given below.

Yoracryl dyes may be applied to acrylic fibres and their blends in all forms by usual batchwise and continuous methods. Since basic dyes exhibit little or no migration on acrylic fibres at temperatures below 100°C (212°F), it is essential to promote a uniform rate of dye absorption from the start of dyeing until the dyebath is exhausted. This is achieved by careful control of temperature rise, use of retarding agents, and in critical cases, selection of the most compatible dye combinations. In principle it is always preferable to use dyes in a combination which have similar compatibility values. Sometimes, however, for reasons of fastness or economy, it is necessary to use a combination of dyes with different compatibility values, but provided the differences are not too great, perfectly satisfactory dyeings are possible, particularly if a retarder is used such as Yoragal AN. This auxiliary is especially useful in pale shade dyeings, where improved levelness can be achieved.

Some basic dyes are extremely sensitive to high or low pH conditions during dyeing and it is advisable to maintain pH 4.0 – 5.0 throughout the dyeing period.

When suitable equipment is available, dyeing temperatures above 100°C (212°F) will greatly improve levelling through migration, particularly if 10-20% Glauber's salt is added to the dyebath. It must be remembered, however, that with most high bulk yarns the maximum temperature must be restricted to 105°C (220°F) and in general, temperatures should not exceed 115°C (240°F). After dyeing, acrylics should be slowly cooled to about 60°C (140°F) in order to retain the fibre characteristics, and avoid setting in distortions or creases.

General Dyeing Method

Set the bath at 70-80°C (160-170°F) with
1ml/l Dyamul AP
1% Acetic Acid (80%) to give pH 4.0-5.0
1% Sodium Acetate

- Enter the prepared material and circulate for 5 minutes.
- Add pre-dissolved Yoracryl dyes, preferably through a sieve.
- Raise the dyeing temperature slowly (1°C [2°F] per minute)
- Dye for 45-75 minutes depending on depth of shade and dyeing temperature.

Basic dyes interact with anionic products of many types and if these are present in the dyebath precipitation or other adverse effects may result. This type of interaction can often be overcome by use of increased quantities of Dyamul AP.

Assessments of the following fastness tests are given:-

Light	B02 Xenotest
Perspiration	E04 perspiration test at pH8 (4 hours 37°C)
Steam pleating	P02 10 minutes at 0.7 bar (10psi)

Dischargeability

An indication of the suitability of the dye for use in Stannous Chloride discharge processes for production of white or as an illuminant is given. Tests were carried out on dyeings approximating to 1/1, NB/Dk or B/Dk standard depth. The following abbreviations are used:-

D suitable for the production of white discharges when used as a ground shade.

I suitable for use as an illuminant.

X not suitable for either of the above uses.