

# PREMIUM JET COLOR

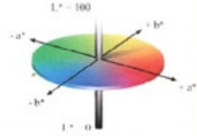
SPECIAL  
LACQUERS



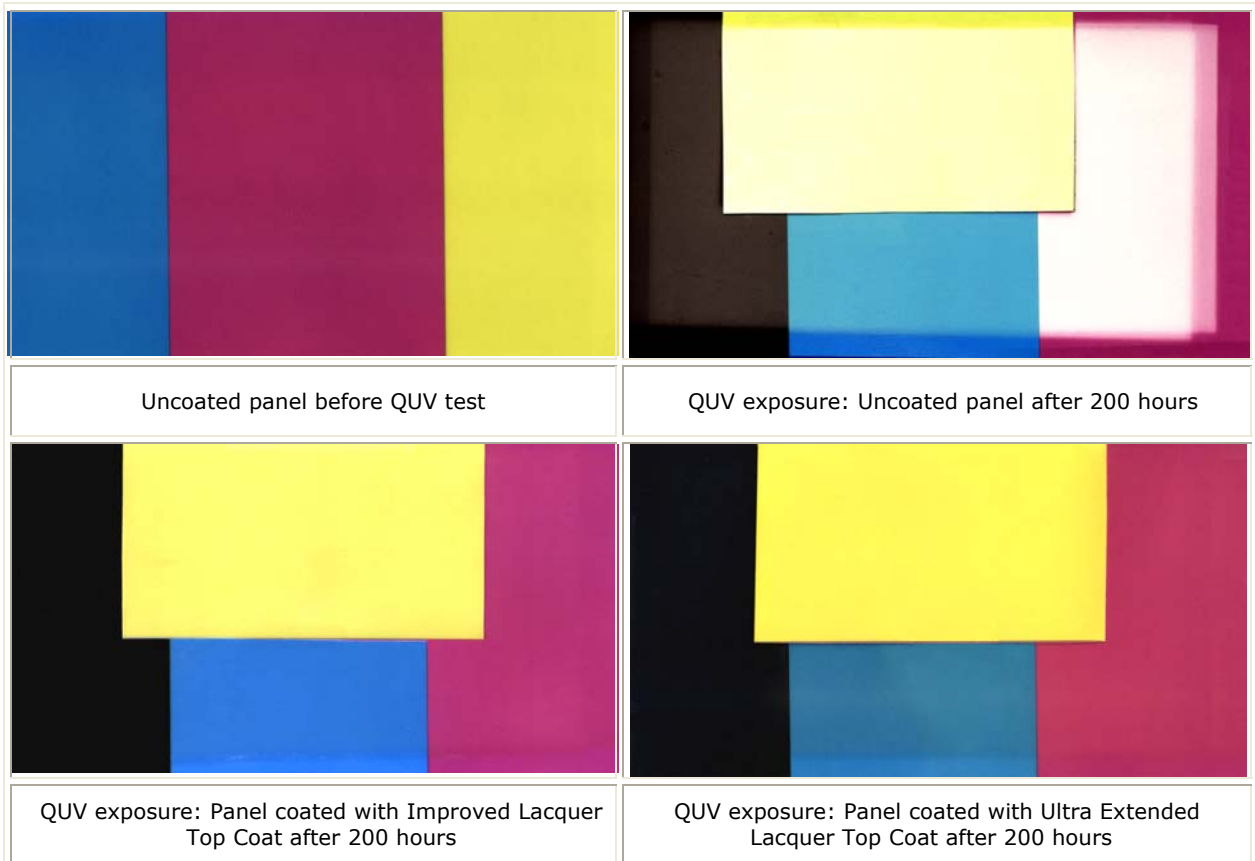
Light-fastness tests

Gdańsk 2008

# PRIM JET COLOR LACQUER TOP COAT PROTECTIVE PROPERTIES TESTS

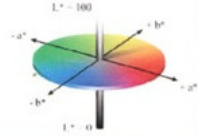
Dye ink light-fastness test summary						
Panel	Parameter	Color				Result
		Blue	Red	Yellow	Black	
Uncoated	$\Delta E_{0-200h}$	23.81	61.96	47.60	25.50	Very poor
Coated with lacquer:						
Improved	$\Delta E_{0-200h}$	10.97	6.34	9.86	1.93	Very good
Extended	$\Delta E_{0-200h}$	11.59	5.67	7.56	0.93	Excellent
Ultra Extended	$\Delta E_{0-200h}$	10.35	5.87	7.33	0.36	Excellent

## QUV –EXPOSURE – PRIM JET COLOR’S DYE INK AND LACQUER AFTER 200 HOURS

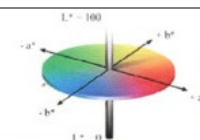


Prim Jet Color exposure data after 200 hours

Dye ink color BLUE fading reading							
Panel	Parameter	Exposition time					
		Initial	7 hrs	24 hrs	48 hrs	120 hrs	200 hrs
Uncoated	L - value	55.94	54.26	55.79	58.96	62.35	67.33
	a*-value	-39.94	-35.29	-31.32	-30.88	-30.21	-31.05
	b*-value	-37.07	-34.28	-28.96	-26.20	-4.62	-18.15
Coated with lacquer:							
Improved	L - value	59.79	56.27	54.40	54.16	54.25	55.13
	a*-value	-34.75	-33.44	-31.59	-30.81	-30.12	-31.22
	b*-value	-27.23	-26.16	-22.92	-21.78	-19.73	-17.95
Extended	L - value	58.83	55.01	53.70	53.20	52.50	52.83
	a*-value	-34.48	-32.34	-30.88	-29.95	-28.49	-20.24
	b*-value	-28.44	-28.35	-25.90	-29.95	-22.08	-22.08
Ultra Extended	L - value	61.78	55.96	55.40	54.94	54.74	54.83
	a*-value	-33.53	-31.82	-30.73	-30.26	-28.88	-29.40
	b*-value	-25.57	-26.49	-23.90	-23.48	-20.42	-19.10

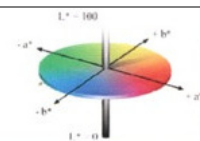
Dye ink color BLUE fading reading							$\Delta E_{0-200h}$
Panel	Parameter	Exposition time					
		0-7 h	0-24 h	0-48 h	0-120 h	0-200 h	
Uncoated	$\Delta L$ - value	-1.68	-0.15	3.02	6.41	11.39	23.81
	$\Delta a^*$ -value	4.65	8.62	9.06	9.73	8.89	
	$\Delta b^*$ -value	2.79	8.11	10.87	32.45	18.92	
Coated with lacquer:							
Improved	$\Delta L$ - value	-3.52	-5.39	-5.63	-5.54	-4.66	10.97
	$\Delta a^*$ -value	1.31	3.16	3.94	4.63	3.53	
	$\Delta b^*$ -value	1.07	4.31	5.45	7.50	9.28	
Extended	$\Delta L$ - value	-3.82	-5.13	-5.63	-6.33	-6.00	11.59
	$\Delta a^*$ -value	2.14	3.60	4.53	5.99	5.57	
	$\Delta b^*$ -value	0.09	2.54	-1.51	6.36	8.20	
Ultra Extended	$\Delta L$ - value	-5.82	-6.38	-6.84	-7.04	-6.95	10.35
	$\Delta a^*$ -value	1.71	2.80	3.27	4.65	4.13	
	$\Delta b^*$ -value	-0.92	1.67	2.09	5.15	6.47	

Dye ink color RED fading reading

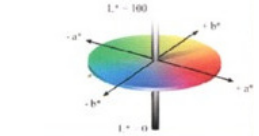


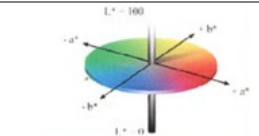
Panel	Parameter	Exposition time					
		Initial	7 hrs	24 hrs	48 hrs	120 hrs	200 hrs
Uncoated	L - value	44.79	47.54	58.72	69.06	81.70	87.12
	a*-value	45.64	43.32	35.70	26.23	10.07	4.09
	b*-value	-19.86	-16.65	-12.38	-9.51	-4.40	-1.94
Coated with lacquer:							
Improved	L - value	48.83	49.39	48.83	49.04	50.03	50.05
	a*-value	40.16	38.69	37.41	37.32	36.92	37.96
	b*-value	-12.36	-11.09	-9.09	-9.51	-6.75	-6.54
Extended	L - value	48.06	47.17	47.40	47.63	48.30	48.72
	a*-value	40.23	38.61	37.93	38.19	38.07	38.57
	b*-value	-12.25	-11.97	-9.91	-9.14	-8.13	-6.87
Ultra Extended	L - value	50.67	49.98	50.00	49.74	50.34	50.59
	a*-value	39.01	37.66	37.01	36.93	36.68	37.01
	b*-value	-13.66	-13.18	-11.90	-10.50	-9.08	-8.14

Dye ink color RED fading reading

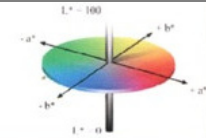


Panel	Parameter	Exposition time					$\Delta E_{0-200h}$
		0-7 h	0-24 h	0-48 h	0-120 h	0-200 h	
Uncoated	$\Delta L$ - value	2.75	13.93	24.27	36.91	42.33	<b>61.96</b>
	$\Delta a^*$ -value	-2.32	-9.94	-19.41	-35.57	-41.55	
	$\Delta b^*$ -value	3.21	7.48	10.35	15.46	17.92	
Coated with lacquer:							
Improved	$\Delta L$ - value	0.56	0.00	0.21	1.20	1.22	<b>6.34</b>
	$\Delta a^*$ -value	-1.47	-2.75	-2.84	-3.24	-2.20	
	$\Delta b^*$ -value	1.27	3.27	2.85	5.61	5.82	
Extended	$\Delta L$ - value	-0.89	-0.66	-0.43	0.24	0.66	<b>5.67</b>
	$\Delta a^*$ -value	-1.62	-2.30	-2.04	-2.16	-1.66	
	$\Delta b^*$ -value	0.28	2.34	3.11	4.12	5.38	
Ultra Extended	$\Delta L$ - value	-0.69	-0.67	-0.93	-0.33	-0.08	<b>5.87</b>
	$\Delta a^*$ -value	-1.35	-2.00	-2.08	-2.33	-2.00	
	$\Delta b^*$ -value	0.48	1.76	3.16	4.58	5.52	

Dye ink color YELLOW fading reading							
Panel	Parameter	Exposition time					
		Initial	7 hrs	24 hrs	48 hrs	120 hrs	200 hrs
Uncoated	L - value	82.60	82.52	83.77	85.05	88.27	89.67
	a*-value	-6.24	-4.70	-4.11	-4.91	-6.28	-6.48
	b*-value	77.22	70.46	65.71	57.82	36.40	30.15
Coated with lacquer:							
Improved	L - value	81.25	79.91	79.12	79.05	78.79	78.45
	a*-value	-1.46	-2.24	-1.17	0.65	0.20	0.88
	b*-value	73.21	65.39	64.46	62.47	61.28	64.05
Extended	L - value	79.25	77.77	77.50	77.30	77.10	76.69
	a*-value	0.75	-0.27	-0.13	0.39	1.17	1.95
	b*-value	71.62	65.63	65.00	63.90	62.49	64.61
Ultra Extended	L - value	81.79	80.92	80.30	80.10	79.72	79.41
	a*-value	-0.78	-1.29	-0.73	-0.23	0.51	1.12
	b*-value	65.57	59.70	59.10	57.48	56.24	58.91

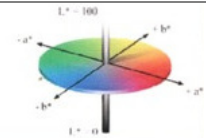
Dye ink color YELLOW fading reading							$\Delta E_{0-200h}$
Panel	Parameter	Exposition time					
		0-7 h	0-24 h	0-48 h	0-120 h	0-200 h	
Uncoated	$\Delta L$ - value	-0.07	1.17	2.45	5.67	7.07	47.60
	$\Delta a^*$ -value	1.54	2.13	1.33	-0.04	-0.24	
	$\Delta b^*$ -value	-6.77	-11.51	-19.40	-40.83	-47.07	
Coated with lacquer:							
Improved	$\Delta L$ - value	-1.34	-2.13	-2.20	-2.46	-2.80	9.86
	$\Delta a^*$ -value	-0.78	0.29	2.11	1.66	2.34	
	$\Delta b^*$ -value	-7.82	-8.75	-10.74	-11.93	-9.16	
Extended	$\Delta L$ - value	-1.48	-1.75	-1.95	-2.15	-2.56	7.56
	$\Delta a^*$ -value	-1.02	-0.88	-0.36	0.42	1.20	
	$\Delta b^*$ -value	-5.99	-6.62	-7.72	-9.13	-7.01	
Ultra Extended	$\Delta L$ - value	-0.87	-1.49	-1.69	-2.07	-2.38	7.33
	$\Delta a^*$ -value	-0.51	0.05	0.55	1.29	1.90	
	$\Delta b^*$ -value	-5.87	-6.47	-8.09	-9.33	-6.66	

## Dye ink color BLACK fading reading



Panel	Parameter	Exposition time					
		Initial	7 hrs	24 hrs	48 hrs	120 hrs	200 hrs
Uncoated	L - value	13.45	14.04	16.87	20.33	29.90	38.82
	a*-value	1.43	2.07	3.15	4.03	4.73	3.84
	b*-value	-0.62	-0.33	-0.13	0.19	1.28	1.5
Coated with lacquer:							
Improved	L - value	24.90	23.38	24.29	23.71	23.39	23.59
	a*-value	-0.23	-0.52	-0.32	-0.28	-0.28	-0.43
	b*-value	0.05	-0.70	-1.00	-1.07	-1.35	-1.36
Extended	L - value	25.21	25.03	25.65	25.80	26.28	25.38
	a*-value	-0.17	0.05	-0.20	-0.16	-0.39	0.01
	b*-value	-3.97	-4.00	-4.04	-4.12	-3.96	-4.87
Ultra Extended	L - value	26.39	26.57	26.80	26.82	26.78	26.53
	a*-value	0.26	0.38	0.33	0.53	0.29	0.33
	b*-value	-6.94	-7.60	-7.24	-7.31	-6.84	-7.26

## Dye ink color BLACK fading reading



Panel	Parameter	Exposition time					$\Delta E_{0-200h}$
		0-7 h	0-24 h	0-48 h	0-120 h	0-200 h	
Uncoated	$\Delta L$ - value	0.59	3.42	6.88	16.45	25.37	25.50
	$\Delta a^*$ -value	0.64	1.72	2.60	3.30	2.41	
	$\Delta b^*$ -value	-0.95	-0.75	-0.43	0.66	0.88	
Coated with lacquer:							
Improved	$\Delta L$ - value	-1.52	-0.61	-1.19	-1.51	-1.31	1.93
	$\Delta a^*$ -value	-0.29	-0.09	-0.05	-0.05	-0.20	
	$\Delta b^*$ -value	-0.75	-1.05	-1.12	-1.40	-1.41	
Extended	$\Delta L$ - value	-0.17	0.44	0.60	1.07	0.17	0.93
	$\Delta a^*$ -value	0.23	-0.03	0.01	-0.22	0.18	
	$\Delta b^*$ -value	-0.03	-0.07	-0.15	0.01	-0.90	
Ultra Extended	$\Delta L$ - value	0.18	0.45	0.43	0.39	0.14	0.36
	$\Delta a^*$ -value	0.12	0.07	0.27	0.03	0.07	
	$\Delta b^*$ -value	-0.66	-0.30	-0.37	0.10	-0.32	