



PLAINTIFF'S EXHIBIT

BIR-1048

June 6, 1983

Mr. Al Stoloff
M & T Chemicals
P.O. Box 1104
Rahway, NJ 07065

Dear Al:

Per our discussion last Thursday in regards to developing color change tolerance values for various siding colors, I am enclosing a chart which summarizes the color change values of selected commercial vinyl siding panels, circa 1978. These charts represent the 36-month data at the 45° south exposure in Norwood, Massachusetts and Shreveport, Louisiana.

As I have them compiled, I will forward to you charts on these same panels representing 12, 18, 24 and 30 months at these same locations starting with the oldest exposures first. I am sure that you will want to get this information as rapidly as possible so that you can have it available for our July meeting.

If you have any questions, please give me a call.

Sincerely,

James Jackson
Product Development Manager, Roofing

JJ/cm

P.S. Unfortunately we did not expose this series for 5 years, 3 years is the oldest data I have.

cc: L. Rogers - BBH

Bird & Son, Inc. / East Walpole, MA 02032 / Telephone (617) 668-2500

BIRD 014272

1978

COLOR CHANGE VALUES FOR COMMERCIAL VINYL SIDING

45° SOUTH EXPOSURE

36 MONTHS

NORWOOD

SHREVEPORT

COLOR	REFERENCE	ΔL^*	Δa^*	Δb^*	ΔE^*	ΔL^*	Δa^*	Δb^*	ΔE^*
Beige	227-1	1.80	-0.14	-5.69	5.96	0.48	-0.13	-3.28	3.32
	232-1	1.42	0.42	-2.75	3.12	0.25	0.34	-0.74	0.85
	241-1	---	---	---	---	3.50	-0.10	-3.70	5.09
	247-1	1.82	-0.13	-3.17	3.65	1.31	-0.32	-2.35	2.71
	253-1	2.78	-0.75	-4.72	5.52	0.95	-0.29	-2.03	2.26
	258-1	-0.26	-0.01	2.39	2.40	-0.53	0.08	3.01	3.06
	263-1	4.33	-0.36	-4.21	6.05	4.02	-0.35	-2.91	4.97
	270-1	---	---	---	---	---	---	---	---
	305-1	1.48	-0.56	-1.62	2.26	1.18	-0.35	-0.57	1.36
	340-1	2.76	0.43	-2.93	4.05	1.86	0.25	-1.19	2.22
Gold	272-1	3.81	1.24	-10.52	11.25	3.49	1.05	-9.37	10.05
	234-1	-0.13	0.81	-3.75	3.83	0.80	1.00	-3.96	4.16
	238-1	2.89	0.45	-14.96	15.24	2.71	0.06	-11.79	2.10
	245-1	1.59	0.49	-8.31	8.47	1.47	0.31	-7.92	8.06
	252-1	0.29	0.64	-6.93	6.96	0.35	0.31	-5.25	5.27
	256-1	1.22	1.09	-8.54	8.69	0.96	0.99	-5.91	6.07
	309-1	0.42	0.79	-3.84	3.94	-0.15	0.31	-2.20	2.23
	335-1	2.49	1.27	-7.60	8.09	1.31	0.80	-4.92	5.15
	228-1	3.57	-0.23	0.53	3.61	2.02	-0.02	0.82	2.18
	231-1	2.20	-0.18	0.09	2.20	0.90	-0.14	0.82	1.23
Gray	237-1	3.52	-0.01	1.26	3.73	4.12	-0.01	1.31	4.32
	251-1	1.82	-0.14	0.80	1.99	1.10	-0.15	1.41	1.79
	259-1	2.67	-0.11	1.35	2.99	2.30	-0.13	1.74	2.89
	336-1	4.14	0.15	0.32	4.42	3.56	0.10	0.42	3.58
	226-1	5.25	5.19	2.93	7.94	1.14	2.43	2.54	3.70
Blue	240-1	9.49	3.74	1.58	10.32	7.23	2.62	1.77	7.89
	242-1	3.61	2.85	8.12	9.33	4.40	3.30	7.45	9.26

1978

COLOR CHANGE VALUES FOR COMMERCIAL VINYL SIDING

45° SOUTH EXPOSURE

36 MONTHS

NORWOOD

SHREVEPORT

COLOR	REFERENCE	ΔL^*	Δa^*	Δb^*	ΔE^*	ΔL^*	Δa^*	Δb^*	ΔE^*
Blue Avocado White	266-1	9.70	3.55	1.48	10.50	10.53	3.59	1.52	1.22
	260-1	4.96	3.05	-8.34	10.17	3.03	2.09	-4.40	5.74
	267-1	4.01	3.00	-6.59	8.27	3.80	2.61	-5.24	6.98
	224-1	-0.83	0.32	-0.62	1.08	-1.03	0.22	0.16	1.07
	235-1	0.44	0.94	-1.64	1.94	0.49	1.00	-1.52	1.88
	244-1	-0.22	0.34	0.11	0.41	-0.64	0.44	0.59	0.98
	246-1	-0.31	0.28	-0.35	0.53	-0.94	0.30	0.18	1.00
	250-1	-0.35	0.17	0.11	0.40	-0.32	0.16	0.56	0.66
	262-1	-0.26	-0.01	2.39	2.40	-0.53	0.08	3.01	3.06
	265-1	0.46	-0.07	1.59	1.65	0.47	0.11	1.42	1.49
	271-1	---	---	---	---	---	---	---	---
	308-1	-0.85	0.48	-0.91	1.33	-0.22	0.50	-1.08	1.21
Yellow	313-1	---	---	---	---	0.29	-0.06	0.55	0.64
	316-1	---	---	---	---	-0.61	0.03	0.65	0.89
	338-1	-0.06	-0.13	3.16	3.16	0.91	-0.16	3.02	3.16
	229-1	-0.82	2.0	-4.64	5.11	-0.92	1.25	-2.79	3.19
	233-1	-1.57	1.88	-3.89	4.59	-1.23	1.64	-3.09	3.71
	239-1	-0.32	2.11	-3.21	3.85	1.26	1.51	-2.37	3.08
	248-1	-1.12	1.64	-2.41	3.12	-0.84	0.82	-0.69	1.36
	254-1	-2.27	2.28	-4.58	5.59	-0.92	1.67	-3.67	4.15
	257-1	-1.34	1.85	-2.78	3.59	-1.22	1.39	-1.58	2.43
	264-1	-1.31	1.67	-1.81	2.78	0.03	1.30	-1.09	1.69
	269-1	---	---	---	---	---	---	---	---
	310-1	-2.14	2.54	-5.91	6.78	-1.53	0.71	-1.18	2.06
	315-1	---	---	---	---	0.06	1.79	-2.97	3.47
	337-1	-2.18	2.31	-4.73	5.69	-0.54	1.38	-2.80	3.17

1978

COLOR CHANGE VALUES FOR COMMERCIAL VINYL SIDING

45° SOUTH EXPOSURE

36 MONTHS

NORWOOD

SHREVEPORT

COLOR	REFERENCE	ΔL^*	Δa^*	Δb^*	ΔE^*	ΔL^*	Δa^*	Δb^*	ΔE^*
Green	230-1	1.98	3.45	-2.99	4.97	1.38	2.56	-1.77	3.40
	236-1	0.62	3.19	-2.66	4.19	1.21	2.37	-2.15	3.42
	243-1	4.03	4.08	-2.87	6.41	4.09	3.53	-2.78	6.08
	249-1	0.63	1.90	-0.39	2.04	1.60	2.42	-1.39	3.21
	255-1	1.89	3.91	-3.08	5.32	2.32	3.27	-2.68	4.82
	261-1	2.79	4.23	-3.33	6.06	2.15	2.93	-1.75	4.03
	268-1	---	---	---	---	---	---	---	---
	307-1	0.00	1.85	-1.47	2.36	-0.22	0.95	-0.41	1.06
	314-1	---	---	---	---	1.09	0.74	0.15	1.33
	339-1	1.98	3.17	-2.09	4.28	1.70	2.53	-1.20	3.27