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MEMORANDUM REPORT # M-695

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301-882 SOYA PE #40 HOUSE PAINT DURABILITY IN YOUNGSTOWN, OHIO

6000 gallons of 301-882 were trial marketed in 1949 and 1950 in Youngstown, New Orleans and Miami. There was quite a cost advantage for soya PE at the time which has changed to a slight disadvantage now. However, soya PE is of interest as a vehicle for house paints, because it improves the color of whites, through dry and wrinkle resistance. Customer's houses in Youngstown, Ohio, which are known to have been painted with 301-882 in 1949 and 1950 and the two controls 301-885 and 301-875 were inspected on March 15 and 16, 1954, and are the subject of this report.

SUMMARY AND CONCLUSIONS:

The houses did not have control paints on them and in only one case was a control paint near enough to inspect at the same time. Accordingly the accuracy of the test is somewhat limited. However, we inspected 19 houses painted with 301-882 and 12 houses painted with 301-885 and 301-875. Types and extent of failure were all about the same and nowhere did any failure appear to be due to an abnormality of any of the products, but could be blamed on the poor substrate or the dirty atmosphere except possibly one case of erosion.

Erosion:

Slight erosion was noticed on a couple of homes which had probably been painted for the first time. The erosion at 4 1/2 years on the Bender home is not serious. However, 3 1/2 years is early to find erosion as we do on the Mader home. If we eventually sell a Soya PE #40, we believe the chalking rate should be retarded.

Flaking:

Flaking is quite prevalent and in most cases seems to result from rotted wood and moisture. The rot appears to be the so-called dry rot which changes the wood so that it shrinks

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considerably when dry and expands when wet. In shrinking, the boards open crevices at their ends which permit rain to enter and in some cases the shrinking has opened cracks in the wood. Flaking was generally noticed near molding, the splash boards, windows, eaves and porches where wood ends meet and were not always tight. Controls 301-885 and 301-875 were about the same in flaking as 301-882.

Cleanliness:

Houses get dirty from the atmosphere and the closer a house is located to the mills the dirtier it is. Houses downwind of the prevailing winds were dirtier than those upwind. Sheltered parts of houses were sometimes very gray. A few blocks close to the mills in West Youngstown collected a reddish buff colored dirt. Other sections of town showed gray dirt.

Tables listing ratings and comments are attached.

SALES DEVELOPMENT

William C. Johnson
W. C. JOHNSON

WCJ:mlf
4/2/54

301-882 SOYA PE #40 HOUSE PAINT

(Table I)

NAME	PAINTED	LOCALITY	GENERAL CLEANLINESS	FLAKING	EROSION	COMMENT
R. Bender	1949	Clean	Good	Absent	Slight	This is a new home. The garage is painted with the control (See 301-875) general appearance very good. Some mildew is evident around shrubs and up under the eaves. Customer comment about flaking in 1951. Flaking occurs around windows and under the eaves. Customer antagonistic previously, was not inspected closely. General Appearance Good.
E. Dressel	1949	Clean	Fair	Cons.	No	
W. Connors	1950	Clean	Good	Localized	"	
Wm. Armes	1950	Clean	Good	Slight	"	
Cuxenlio	1950	Clean	Fair-Good	Slight	"	
Salt	1950	Clean	Fair-Good	Slight	"	
Mcder	1950	Clean	Good	Absent	Slight	Unusually good - some dirt and mildew on the north. House looks very good. Dirt collection is very bad where protected. Flaking occurs on the unprotected west side. This house is extremely dirty because it is in the path of prevailing winds from the mills and is close to the mills. This house is a reddish buff color from the steel furnaces which can be seen from the house. The back side is a good example of the practice of letting a house weather until the wood is rotted and cracked before painting it. The wood has shrunk away from windows and moulding.
Roush	1950	Clean	Good	Slight	No	
Magni	1950	Dirty	Dirty	Cons.	No	
McCracken	1950	Dirty	V.Dirty		No	
Seley	1949	Dirty	V.Dirty	Bad	No	
Clemens	1950	Dirty	Dirty		No	Looks quite good for the section but is due to proper surface preparation of the home. It is a reddish white color from the mills. Trim only on brick - The color of the paint is a uniform red buff color from the mills. It was painted white however.
525Redonda Rd.	1950	Dirty	Dirty	Slight	No	

(Table I - Cont)

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NAME	PAINTED	LOCALITY	GENERAL CLEANLINESS	FLAKING	EROSION	COMMENT
Discounte	1950	Clean		Blisters	No	East side about 4 feet from neighbor shows shows bad dirt. Typical moisture blisters up around eaves.
Silvassi	1959	Clean	Good	Slight	No	Slight mildew under the eaves.
536Dorothy	1950	Dirty	Fair	V.Slight	No	General appearance good for the neighborhood.
Victor	1950	Clean	Good	V.Slight	No	Slight mildew under eaves.
2513ShirleyR.	1950	Dirty	Fair	Cons.	No	Is fairly clean for the neighborhood.
D'Avangio	11950	Clean	Fair	Slight	No	North side is relatively clean - East side is dirtier. Prevailing winds probably account for this.

(TABLE II)

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301-885 LINSEED OIL #40 OUTSIDE WHITE

NAME	PAINTED	LOCALITY	GENERAL CLEANLINESS	FLAKING	EROSION	COMMENT
103Dunlap	1950	Clean	Fair	Cons.	No	North side bad dirt; south side bad peeling; peeling and flaking above splash board and on porch ceiling.
1105Bennington	1950			Cons.	No	The house has been repainted but the garage and back porch show flaking.
810Lyden	1950		Fair	Cons.	No	Generally fair condition with the typical Youngstown woodrot throughout.
Mohr	1950	Clean	Good	V.Little	No	Very good shape with a small amount of wood rot around the gutter.
Amichetti	1950	Dirty	Poor	-	-	This house was repainted in 1952 but shows the same buff color of Seley's house.
Tyche	1950			Cons.	No	Painted gray - shows typical wood rotting failure on the south side.

(Table III)

301-875 LINSEED OIL/SOYA OIL #40 OUTSIDE WHITE

NAME	PAINTED LOCALITY	GENERAL CLEANLINESS	FLAKING	EROSION	COMMENT
Tyche Weidman	1949 1949	Good Good	Cons. Cons.	No No	Painted gray Shows considerably wood rot. The East side is fairly dirty.
35N. Hartford	1949	Clean	Bad	No	The north side has very bad flaking and peeling. The customer has patched sections.
195. Hazelwood	1949	Clean	Fair-poor	Slight	The wood is in very good condition and no flaking was observed. The east side is 8 feet from the neighbor and very dirty.
197. Donald R. Bender	1949 1949	Dirty Clean	Bad None	No Slight	Bad peeling on the north, west & east. This is a garage and is the control for 301-882 on the house. They are equal.