

UNION
CARBIDE

INTERNAL CORRESPONDENCE

CHEMICALS AND PLASTICS

P. O. BOX 471, TEXAS CITY, TEXAS 77590

TO (NAME) Mr. M. E. Eisenhower
COMPANY Building 88
LOCATION TEXAS CITY PLANT

DATE March 22, 1976

MAY 17 1976

R N WHEELER JR.

COPY TO Mr. E. Bell - 312
Mr. R. L. Frantz
Mr. J. L. Hockersmith
Mr. F. S. Provenzano
Mr. W. C. Roeh/F. L. Johnson
Mr. G. T. Scott - 501
Mr. G. F. Tacquard

SUBJECT Non-Solvent Shrink Wrapping

Merle:

We have completed the study of the shrink wrapping project on VYNW-5 resin for Travenol. These tests were conducted in an effort to determine the rate of evolution of VCM from the resin if the pallets of bags were shrink wrapped.

Blend 3910 (VYNW) was selected by Bill Roeh for the test. The resin was bagged and four (4) pallets were shrink wrapped and placed in the 21st Street Warehouse on March 2, 1976. A control pallet, which was not shrink wrapped, was placed in the warehouse with the test pallets. On each sampling a new shrink wrap pallet was cut open to obtain a sample.

Data are as follows:

		VCM, ppm	Heat Loss (%)
3/2/76	1) B-3910 (~ 4 hrs after bagged & wrapped)	68	1.35
	2) B-3910 Control sample - not wrapped.	26	0.57
3/5/76	1) B-3910 (3 days after bagged & wrapped)	52	1.16
	2) B-3910 Control sample - not wrapped	4	0.32
3/9/76	1) B-3910 (7 days after bagged & wrapped)	78	1.26
	2) B-3910 Control sample - not wrapped	2	0.27

From these data, it is significant to note the VCM content on the control sample dropped from 26 ppm to 2 ppm, whereas the shrink wrap sample remained relatively constant. The heating loss data also show that shrink wrapping impedes the dissipation of the other volatiles in the resin as well as the VCM. All the shrink wrap heat losses (%) exceeds the 1.00 maximum specification. In fact, there were droplets of condensation on the inside of the shrink film and the resin felt damp in the bags.

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Based on these data, we would recommend that VYIN resin not be shrink wrapped unless VCM and the other volatiles were reduced to an acceptable level prior to packaging.

Please let us know if additional testing in this area is needed.

G. E. Vaughan
G. E. Vaughan

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