



[Alvin W. Boese Papers.](#)

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GENERAL OFFICES • 3M CENTER • SAINT PAUL, MINNESOTA 55101 • TEL. (612) 733-1110

Paper Products Division

3M BRAND CAPSULES

FILL:	0.4% Sodium Hydroxide 1.4% GANTREZ AN (GAF) 98.2% Tap Water
	pH: 7
	Stringiness: None
	Viscosity: 35 cp
SHELL:	"Standard Tough" Wax-Resin, m.p. 140°F
TYPE:	Water-In-Wax
LOT NO.:	PPL-515
SIZE:	2.5 mm
PERCENT FILL:	84.5%
* HALF LIFE:	2.0 years
PACKAGED:	Dry

*The half life is the length of time required for half of the water to evaporate through the capsule shell at 75°F and 35% relative humidity.

cc: R.P. Arew
D.K. Huebner
A.W. Boese

Subject: Al Boese's Non-
Wovens Group's Efforts -
Incorporation of BITEM
Capsules

August 17, 1972

TO: Fred Paul - Paper Prots Microencapsulation
Laboratory - 235-1E

FROM: Norm Sweeney - "

Monday Morning, 10am, Aug. 21, 1972,
Al Boese has invited us to his
laboratory to inspect a half-dozen
prototypes of Non-Wovens incorporating
BITEM Capsules.

We furnished Al Boese with
about 2lbs of BITEM capsules
(Lot No PPL-515, 2.5mm, Water Filled)
and asked him to see if he could help
us with Jack Murphy's (Lanvin - New Prots
chief) possible needs. M.P.S. 8/17/72

cc: R. P. Arens 209-D5A
A. W. Boese 53-5
F. R. Paul 235-1E

Subject: Lanvin: INITIAL
ATTEMPTS BY A. W. BOESE'S
GROUP TO INCORPORATE
3M BRAND WATER-IN-WAX
CAPSULES IN NON-WOVENS

AUGUST 21, 1972

TO: D. K. Huebner - PAPER PROTS Div - 220-11W
FROM: N. P. Surpreny - " - 235-1E

As you requested by phone late this afternoon I am sending you samples prepared by Vernon W. Marguaret and Alvin W. Boese of 3M Co. Corporate Innovative Lab.

For the hand squeeze operated baby cleaning wipe product I rank the crude prototypes as follows:

Rank	Sample No.	Description
1	082172-1*	4" x 5" Packet: Thin poly film on one side and non woven with adhesive on the other. (A random mono layer of capsules adhered to a 2" x 3" area on the adhesive side of the non woven sheet and the thin poly film was placed on top of this and sealed by pressure around the outside)
2	082172-2*	4" x 5" Packet: Non-woven, adhesive coated sheets on both sides. (Made like above)
3	082172-3*	Sheeted Material: Capsules randomly placed on adhesive side of non-woven sheet and a thin poly film pressed around the edges and in random spots
4	082172-4	Sheeted Material: Capsules laid down in $\frac{1}{2}$ rows 1" apart onto adhesive side of non-woven sheet. A thin poly film was hand hand pressed around the capsules.
5	082172-5	Like Sample No. 082172-4 except both sides are non-woven
6	082172-6	Like Sample No. 082172-3 except both sides are non-woven

* These samples were inadvertently, partially smashed.

Rank	Sample No	Description
7	082172-7	Capsules on a thin poly film covered by a $\frac{1}{4}$ " thick very open non-woven sheet off the "Garnet" machine.
8	082172-8	Capsules on a non-woven sheet (plain-no adhesive) covered with a second such sheet and adhered together with a binder dispersion and air dried.

Darell, Boese said not to worry about fiber rub-off. They have sufficiently strong sheets to overcome this. Also he invited me or anyone from our group to come down and work with his group to make the next generation of samples. Bigger capsules are needed, for one thing, and new clothes and new configurations should be looked at.

Thomas A. Flawerty
8/22/72

Inter Office

March 13, 1973

D. K. Hubner 220-11W
N.P. Sweeney 235-1E

Here are six pads with the water capsules in I made up this morning. The fabric is that one that Vern suggested and which he made. — polypropylene staple 3 denier x $1\frac{1}{2}$ " carded and needled through lab stockroom cotton cheesecloth. Enclosed is an $8\frac{1}{2}$ x 11 sheet of this fabric. Vern can make it 1' wide by all day long.

I used EC-847 to adhere the edges of the pads together so as to get a soft edge. Melting the polypropylene fiber or using the Borden vinyl chloride resin produced hard edges.

Also enclosed for comparison is a pad made up of tubular knit. We don't like it as well, but it is the cheapest yarn-to-fabric (textile) process known.

cc. Vern Marguant

Doug Campbell