

TELETYPE

OCT. 31, 1966, 2:50 PM

TO: J F ERDMANN
TEXAS CITY

RE: QSOM-7

THANKS FOR YOUR COMMENTS. YOU WILL
SEE EVIDENCE OF THESE IN MY LETTER TO
BARBIERI.

RNWHEELER

UCC
039501

UNION
CARBIDE

INTERNAL CORRESPONDENCE

PLASTICS DIVISION

RIVER ROAD, BOUND BROOK, NEW JERSEY

To (Name) Mr. R. N. Wheeler, Jr.
Company UCC - Chemicals Division
Location So. Charleston, W. Va.

Date October 21, 1966

Originating Dept.

Answering letter date

Subject QSOM-7

RECEIVED

OCT 31 1966

R. N. Wheeler

Copy to Dr. W. B. Ackart - BB
Dr. F. E. Bailey, Jr. - SC
Mr. W. H. Bauer - Tarrytown
Dr. J. J. Brezinski - SC
Mr. W. D. Bush - TC
Mr. F. D. Dexter - NY
Dr. A. W. Downes - NY
Mr. J. F. Erdmann - TC
Mr. C. R. Field - NY
Mr. N. A. Gimber - TC
Mr. H. C. Gunst - BB
Mr. G. G. Himmeler - BB
Mr. J. L. Hockersmith - TC
Mr. P. T. McCoy - Tarrytown
Mr. D. E. Richardson - TC
Mr. J. R. Wilkinson - NY
Dr. N. L. Zutty - BB

A proposed Manufacturing Specification and a Product Standard for QSOM-7 are submitted herewith. These are based on recommendations made by Messrs. Wheeler, Bush, McCoy, and Zutty. Your attention is directed to the following points:

(a) In anticipation of early approval, this product is identified as QSOM-7. It should be noted though that it was agreed earlier that the designation 7 would be used only for FDA approved products. We are advised by Dr. Ackart that, although FDA approval is excepted, it has not yet been obtained.

(b) It is agreed that ethylene content must be defined sooner or later and the limits proposed are those recommended by Texas City. However, it also has been suggested that ethylene content remain on a DAR basis until more experience has been acquired. Dr. Zutty objects to this. A decision on that point is requested.

(c) It is Dr. Zutty's opinion that a .04 range for inherent viscosity is too broad to maintain the desired melt viscosity. He recommends that this range certainly not exceed .03 and preferably be kept within .02 if possible.

expected?
He doesn't have any data to establish this need - let's find out from what customers tell us, and make SPEC. CUSTOMER REQUIREMENTS wherever it is necessary to hold the business. - Same applies to item 3.

NICK - This -7 has nothing to do with FDA - never did + never should - Some people in this organization do not recognize that this is a resin, not a compound and the codes are not equivalent!

FROM: N.

UCC
039502

Mr. R. N. Wheeler

- 2 -

October 21, 1966

Method is available, but it is not very precise.

- (d) Apparently a method is lacking for measuring ethylene content but several are available for measuring free vinyl chloride so that being used should be identified.

Early replies are requested since we understand that marketing of this resin in the near future is planned.

D. Barbieri

DB:jal

UCC
039503

P R O P O S E D
POLY (VINYL CHLORIDE) RESIN

QSOM-7

	<u>Specification Limits</u>	<u>Method</u>
1 <u>Particle Size</u> % by weight through USBS Sieve No. 40 USBS Sieve No. 200 Median particle size, microns	100 minimum 5, maximum 140 - 200	WC-7-F
2 <u>Heating Loss,</u> 45 minutes at 105°C	0.5 per cent by weight, maximum	WC-160-H
3 <u>Ethylene Content</u>	1.3 ± 0.2	Pending
4 <u>Free Vinyl Chloride</u>	DAR	Pending
5 <u>Inherent Viscosity,</u> 0.2 gm of resin per 100 ml of cyclohexanone at 30°C	0.96 to 1.00	WC-31-B-4 ASTM-D 1243 Method A
6 <u>Apparent Melt Viscosity</u>	1750 ± 100 mg/sec	WC-327-B
7 <u>Foreign Matter,</u> slurry rating	3, maximum	WC-15-P-1
8 <u>Clear Fisheye Test</u>	4, maximum	Pending
9 <u>Hard Resin Particles,</u> 17.5 mils 10.0 mils	0, maximum 100, maximum	WC-15-K-2
10 <u>Apparent Density,</u> lbs./ft. ³	28 - 32	WC-2-B
11 <u>Resin Dry Flow,</u> seconds/400 cc	4.0 maximum	ASTM D 1755- 60T
12 <u>Initial Color Mill</u> <u>Test</u>	100, minimum	WC-163-C
13 <u>Plasticizer Sorption,</u> parts DOP/100 parts resin	90, minimum	ASTM-D-1755- 60T WC-28-A

(over)

PROPOSED PRODUCT STANDARD

QSOM-7

October 21, 1966

"BAKELITE" VINYL RESIN QSOM-7

DESCRIPTION - QSOM-7 is a medium molecular weight poly (vinyl chloride) resin designed for dry-blending, calendering, extrusion, and molding applications. It leads to lower melt viscosity in rigid or non-rigid compounds, and hence faster production or output rates of finished products. QSOM-7 has excellent initial color and ultimate stability, is commercially free of fish-eyes, and has very good dry-blending characteristics. It meets the requirements of ASTM Specification D1755 for Type GP-4-1534.

PROPERTY	TEST METHOD	TYPICAL VALUE
Vinyl Chloride, %	WC-294-D	99
Inherent Viscosity 0.2 gm in cyclohexanone at 30°C	D1243 Method A	0.98
Heating Loss, %	WC-160-H	0.3
Apparent Density lbs./cu.ft., approximate	WC-2-B	30
Plasticizer Sorption parts DOP/100 parts resin	D1755-60T	98
Resin Dry Flow, seconds/400 cc	D1755-60T	3.2
Particle Size % by weight through:	WC-7-F	
USBS Sieve No. 40		100
USBS Sieve No. 200		3
Median particle size, microns		170
Initial Color Mill Test	WC-163-C	100
Hard Resin Particles (17.5 mil)	WC-15-K-2	Nil
Dry Blend Trial - minutes to dry	WC-324-A	4
Contamination (slurry rating)	WC-15-P-1	2

→ All other "Q"-resins show
100 here - can't we do
that here also?
if anyone
has a resin test
looks like
100 - th.
meth. is not
that accurate.
To use
"99" here
will be
having a
flag for
on competitors!

TESTING METHODS The properties described in this Plastics Product Standard are measured in accordance with current issues of the specified testing methods. Methods of the American Society for Testing Materials are identified by the prefix letter "D". Standard Testing Methods of Union Carbide Plastics Division are identified by the prefix letters "WC". Details of the "WC" - methods are available on request.

PACKAGING The standard package for BAKELITE Vinyl fabricating resins is a four-ply multiwall Kraft paper bag containing 50 pounds of material. If desired these resins also can be supplied in hopper cars containing a minimum of 100,000 pounds.

LABELING All containers of BAKELITE Vinyl fabricating resins are plainly marked with the product number, lot number, and net weight. Shipments will be so addressed as to assure complete delivery to the purchaser.

UCC
039505