

UCC, PLASTICS DIVISION
VINYL RESINS HANDBOOK - CONFIDENTIAL
RESIN MANUFACTURING SPECIFICATION

QSOM-7
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November 30, 1966

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 D1243 Method A
6 <u>Apparent Melt Viscosity</u>	DAR (Aim 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 WC-502-C

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12	<u>Initial Color Mill</u> <u>Test</u>	100, minimum	WC-163-C
13	<u>Plasticizer Sorption,</u> <u>parts DOP/100 parts resin</u>	90, minimum	ASTM-D-1755-60 WC-28-A
14	<u>Dry Blend Trial</u> <u>time to dry, minutes</u> <u>temperature, °C</u>	5.0 maximum	WC-324-A
15	ASTM Conductance	DAR	WC-51-T

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PLASTICS PRODUCT STANDARD

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"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

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.

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