

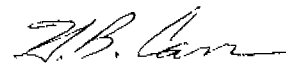
INTER-OFFICE MEMO **TENNECO CHEMICALS, INC.**

TO Route List AT DATE November 9, 1973
 FROM H.B. Carr AT Burlington COPY TO ☒ File
 SUBJECT Revised Homopolymer and Copolymer Specifications

Revised Homopolymer and Copolymer Specifications are attached. These specifications were agreed to by Manufacturing and Marketing and have, as a basis, current plant process capabilities and field requirements.

The specification changes and products affected are shown on the specifications under Reasons for Revisions. In general, relative viscosity, loose bulk density, volatiles, screens and gels specifications have been adjusted for the homopolymer product mix. For copolymer, adjustments have been made on relative viscosity, loose bulk density, bound acetate and screens.

The Homopolymer Specifications will be reviewed again when the current evaluation of the future Pasadena Plant product specifications is complete (memo: D.I. Smalley to D.C. Hawk, 10/31/73, Pasadena PVC Project).



H.B. Carr

Attachments (2).

HBC/jst

Route List

D.M. Bartron	R.A. Lojewski
W.A. Britton	R.H. Mathis
W.C. Champion	J.W. McBroom
R.S. Cole	R.R. Merkel
K.J. Decher	R.S. Miller
G.E. Disch	W. Miringoff
J.C. Fisher	L.T. O'Brien
M. Freifeld	P.M. Reed
C.J. Gallagher	Dr. M. Rosen
P. Gawason	G.I. Rozand
D.A. Guarino	P.R. Scarito
D.C. Hawk	R. Sherman
H.R. Horton	A.C. Siegel
C.B. Johnson	R. Sloff
D. Johnson	D.I. Smalley
F.W. Kanzler	J.T. Sweeney
J.F. Kilcullen	A.M. Taranto
D.J. Kryzwicki	C.G. Thompson
Dr. P.A. Lobo	J.J. Zullo

CONFIDENTIAL

Date: November 6, 1973
Supersedes Issue of March 21, 1973

HOMOPOLYMER RESIN SPECIFICATIONS

												Screen				
Sales Number	Series No. (a)	For- mula No.	Relative Viscosity (h)	Dry Blend Time (minutes)	Gels (max) (i)	Bulk Density (lb/ft ³)	Cont. (max) (g)	Mag. Count (max)	Heat Stab. (min)	Vols. % (max) (j)	Vol. Resist. (min) (ohm-cm x 10 ¹²)	, (% Cumulative)				
												+60	+80	+100	+140	+200
150	/11--	522	1.57-1.65	-	(b)	39-43	20	-	70	1.0	-	0-Tr	-	-	30-70	0-25
10-5R	/49--	195	1.75-1.81	-	(b)	37-41	20	6(c)	90	0.9	-	0-Tr	-	-	40-80	0-20
175	/13--	192	1.77-1.85	3.5-6.5(d)	(b)	37-41	20	-	70	0.9	-	0-Tr	-	-	40-80	0-20
200-2	18/19--	439	2.00-2.08	6.0-8.0	13	32-36	20	-	90	0.8	-	0-3	-	30-60	-	0-10
200/12R	14/15--	433	2.00-2.08	7.5-11.5	13	32-36	20	-	85	0.8	-	0-3	-	30-60	-	0-10
17F	24/ --	176	2.25-2.32	6.0-7.5	9	28-33	10	-	+110	0.5	-	0-3	-	40-70	-	0-5
				1)6.0-7.0												
225/16R	22/23--	120	2.25-2.32	1B)6.0-8.0	13	28-33	20	6(c)	90	0.5	10	0-5	1B) 5-40	1B) 30-70	-	0-6
250	26/27--	125	2.31-2.39	5.4-6.8	12	28-33	20	-	90	0.5	10	0-3	5-40	40-70	-	0-5
250-12	38/39--	122	2.40-2.48	6.0-8.0	12	29-33	20	6(c)	90	0.5	1.0(e)	0-3	-	40-70	-	0-5
250-3	32/33--	162	2.42-2.51	5.5-7.0	13	27-32	20	-	100	0.5	10	0-3	5-40	40-70	-	0-5
300	50/51--	159	2.94-3.02	5.5-7.5	12	27-32	20	-	100	0.5	-	0-3	-	40-70	-	0-5
												Screen				
Sales Number	Series Number	For- mula No.	Relative Viscosity (h)	Bulk Density (lb/ft ³)	Heat Stab. (min)	Vols. % (max) (j)	Cont. (max) (g)	PTU (max)	Brkfld 1 Day 20 rpm (max)	Severs 100 psi (max)	(% Cumulative)					
											+140	+200	+270			
BR-501	/45--	189	2.16-2.26	38-43	DAR	0.9	30	12	125	125	Tr	5(f)	DAR			

Note: Any resin showing undesirable or unusual properties not listed above will be E grade and held for disposition.

- (a) Even series numbers at Flemington; odd at Burlington
- (b) Brabender Extruder Gel Test - max 4 (DAR for 150 and 175)
- (c) Reported as average count per lb of dryer samples; material failing to meet this spec will be graded IS and must be held for disposition.
- (d) Dry blend 20%
- (e) Western Electric
- (f) If greater than 5, run wet screen (0.5 max); use the following stack for screen analysis: 140, 200, 270, 325 and Thru; screen dryer samples and check for oversize with 100 mesh screen
- (g) Count per 100 gm
- (h) 1% solution in cyclohexanone @ 25°C
- (i) Reported as square root of number of gels per 100 square inch
- (j) Volatiles testing will be repeated on dryer composite samples if the average individual dryer results exceed specification.

Reasons for Revisions: Relative Viscosity on 10-5R, 17F, 225/16R, 250-3; Gels on 17F;
Loose Bulk Density on 17F, 225/16R, 250, 250-12, 250-3, 300;
Volatiles on 17F, 225/16R, 250-12, 250-3; Screens on 10-5R, 200-2 and 200/12R

H.B. Carr
H.B. Carr
Supervisor - Quality Control

COLORITE 013546

CONFIDENTIAL

Date: November 6, 1973
Supersedes Issue of June 20, 1973

COPOLYMER RESIN SPECIFICATIONS

Sales Number	Series Number	Formula Number	Relative Viscosity (g)	Bulk Density (lb/ft ³)	Heat Stability (min)	Volatiles % (max)	Cont. (max) (h)	Magnetic Count (max)	% Light Absorb. (max)	Bound Acetate %	Dry Resin Flow	Screen (% Cumulative)			
												+60	+80	+100	-200
314	60----	622	1.43-1.48	37-45	95%	1.9	25	-	100	13.5- 15.5	-	0-20	-	40-80	0-10
315	61----	360	1.53-1.58	37-45	95%	1.3	25(b)	6(a)	100	13.5- 15.5	-	0-10	10-50	-	0-10
382	63----	601	1.83-1.95	38-45	90%	1.5	25	-	100	9.5- 11.5	-	0-20	-	20 min	0-10
387	67----	276	1.69-1.74	38-44	90%	1.3	25(b)	-	-	13.3- 15.3	-	0-10	-	35-75	0-10
388	68----	592	1.57-1.61	38-45	90%	1.2	25(b)	6(a)	-	10.0- 12.0	-	0-10	10-50	-	0-10
389	69----	619	1.60-1.65	37-44	90%	1.2	25(b)	6(a)	-	11.5- 13.5	Flow 1&2 Funnel(f)	0-10	5-35	-	0-20
390	75----	616	1.81-1.87	36-43	100%	1.5	25(b,e)	10(a)	-	8.8- 10.3	-	0-10	25 max	-	0-20
391	77----	623	1.48-1.53	38-45	90%	1.5	25(b)	6(a)	-	16.2- 18.2	Flow 1&2 Funnel(f)	0-20	10-60	-	0-15
Sales Number	Series Number	Formula Number	Relative Viscosity (g)	Bulk Density (lb/ft ³)	Heat Stability (min)	Volatiles % (max)	Cont. (max) (h)	PTU (max)	Bound Acetate %	Brkfld 1 Day 20 rpm (max)	Severs 100 psi (max)	Screen (% Cumulative) (c)			
												+140 Tr	+200 5	+270 DAR	
RP-521	72----	607	1.95-2.05	Color Equal/ Better	33-41	DAR	0.9	30	17	3.2-4.7	200	200			

Note: Any resin showing unusual or undesirable properties not listed above will be E grade and held for disposition.

- (a) Reported as average count per lb of dryer samples. Material failing to meet this spec will be graded IS and must be held for disposition.
- (b) No hard or foreign particle contamination permitted on record resins.
- (c) If greater than 5, run wet screen (0.5 max).
- (d) Use following stack for screen analysis: 140, 200, 270, 325 & Thru. Screen dryer samples and check for oversize with 100 mesh screen.
- (e) The max count of 25 will apply to contamination particles up to 0.40 square millimeters in size; of which not more than 10 may be in the 0.20 to 0.40 square millimeter range. Any lot containing contaminants larger than 0.40 square millimeters will be E grade and held for disposition.
- (f) Monitor for internal information.
- (g) 1% solution in cyclohexanone @ 25°C.
- (h) Count per 100 gm.

Reasons for Revisions: Formula Number on 315; Relative Viscosity on 382, 389, 390 and 391;
Loose Bulk Density on 389; Bound Acetate on 315; Screens on 314, 382,
389, 390 and 391.

H.B. Carr
H.B. Carr
Supervisor - Quality Control

COLORITE 013547