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(54) Title: TRANSPARENT AND HIGH-HEAT POLYCARBONATE-POLYSILOXANE COPOLYMERS AND TRANSPARENT BLENDS WITH POLYCARBONATE AND A PROCESS FOR PREPARING SAME

The effect of Various Phosphorus-based Acids on Haze Formation in PC siloxane Co-polymer on Abusive Molding
(All phosphorus acids evaluated at equivalent molar levels).

	Comp Ex 1	Ex. 1	Ex. 2	Ex. 3	Ex. 4	Ex. 5	Ex. 6
PC siloxane, lot A	100%	100%	100%	100%	100%	100%	100%
H3PO3, 100 x dilution		0.9 ppm	2.25 ppm				
H3PO4, 100 x dilution				1.08 ppm	2.74 ppm		
MZP(monozinc phosphate)						3.24 ppm	8.1 ppm
620 F, std cycle % haze	4.4	2.3	1.8	1.6	1.3	1.4	1.5
620 F, 10 min dwell, % haze	76.1	23.3	1.9	1.1	1.4	1.4	3.9
MVR, 18 min Dwell	11.17	8.21	8.74	8.46	8.50	8.38	7.91
MVR, 6 min Dwell	10.26	9.01	8.47	8.01	7.95	8.08	7.72
300 C, viscosity, P	5516.0	5990.0	6168.0	6316.0	6425.0	6404.0	6626.0
% Change, 30 min, 300 C	-14.0	-13.0	-12.0	-13.0	-12.0	-10.0	-8.5
% haze, autoclave, 24 hrs	8.3	6.1	5.1	4.2	4.5	5.6	5.4
48 hrs	12.4	9.9	8.5	7	8.2	10.3	12.8
72 hrs	13.4	11.6	10.1	8.7	11.7	13.4	15.5
120 hrs	16.5	14.8	16.1	16.3	22.1	25.9	20.6
144 hrs	18.9	20.3	22	22.2	29.3	34.1	21.9
168 hrs	24.6	22.6	23.7	23.8	31.7	36.7	40.6
192 hrs	25.9	23.5	25.2	23.4	31.2	36.4	42.2
216 hrs	28.6	26.1	28.5	26.7	36.3	40.6	48.2
240 hrs	30.1	27.6	30.8	29.1	38.8	43.9	53.5

MW, 240 hrs 20717 20925 20759 20983 20500 20717 20722
(Initial MW Comp. Ex. 1, 22308)

(57) Abstract: A method is provided for making siloxane polycarbonate copolymers and blends of other polycarbonates with such copolymers wherein the copolymers and blends have excellent transparency and physical characteristic.

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