

ESTERS FOR PVC COATINGS - FOOD PACKAGING

Hallstar ester plasticizers for PVC coatings(metal containers and closures) provide the right chemistries to meet global regulatory demands and the performance to prevent migration over an extensive array of food & beverages.

Recipe: PVC Resin - 100 pphr; Plasticizer - 67 pphr(40%) of total compound

Plasticizer	PARAPLEX®				PLASTHALL®	DIOPLEX®			
	G-25	G-40	G-54	G-57	P-643	100	195	430	904
Viscosity@25C, cps	160,000	150,000	5600	6800	2650	20,000	2180	10,000	3300

Original Physical Properties

Hardness Duro A, pts.	75	87	77	78	74	70	70	74	70
100% Modulus, psi	1200	1550	1250	1300	1050	1125	1200	1375	1195
Elongation @ Break, %	420	420	430	470	430	420	390	420	395
Tensile Strength, MPa	15.2	16.9	16.9	17.6	16.2	16.7	17.3	18.1	17.4
Tensile Strength, psi	2200	2450	2450	2550	2350	2415	2500	2625	2525
Specific Gravity	1.253	1.297	1.271	1.278	1.264	1.278	1.267	1.274	1.267

Weight Change (%)

n-Hexane, 24hrs @23°C	-0.39	-0.58	-2.8	-1.5	-3.9	-0.2	-3	-0.4	-2.1
1% Soapy Water, 7d @90°C	-5.3	-17	-15	-16	-21	-3.3	-11	-14	-0.8
Cottonseed Oil, 24hrs @ 60°C	-0.08	-1.9	-3.6	-4.6	-5	-2.6	-4.9	-2.6	-4
Distilled Water, 24hrs. @ 60°C	-0.28	-2.4	-1.1	-1.3	-2.2	-0.4	-1.2	-6.6	1.9
High Humidity, 9d @ 90°C	-0.09	-8.4	-3	-4.6	-4.5	-0.2	-2.2	-9.9	-0.3
Volatility, 3d @ 136°C	-0.97	-2	-1.4	-1.5	-2.1	0	-1.4	-0.8	-1.1

KEY: First Choice Second Choice

Products listed above are acceptable under EU Food Contact Directive: 10/2011 Plastics, Resolution AP 2004(1) - Coatings and US FDA: 21 CFR 175.300, 177.1210

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