ELVAX™ EVA copolymer resins grade selection guide

ELVAX™ resins

ELVAX™ ethylene vinyl acetate copolymer resins add toughness and flexibility to industrial, consumer, and packaging applications.

Industrial & consumer applications

Advantages of ELVAX™ in industrial and consumer applications include inherent toughness, resilience, better flexibility than low density polyethylene over a broad temperature range, and excellent environmental stress crack resistance. Clarity varies from translucent to transparent.

With no plasticizer to migrate and low odor, these resins offer advantages for use in many applications now served by plasticized polyvinyl chloride and compounded rubbers. Typical applications include flexible hose and tubing, automobile bumper systems, footwear components, wire and cable compounding, molded automotive parts, toys and athletic goods.

These resins can be processed by injection molding and other conventional thermoplastic methods including structural foam molding, sheet and shape extrusion, blow molding and wire coating. Conventional rubber processing techniques such as Banbury, two-roll milling and compression molding may also be used.

Elvax™
ethylene vinyl acetate copolymers by
DOW®

Table 1: ELVAX™ grades for Industrial & Consumer applications
Grades are listed by vinyl acetate content and are available globally unless indicated otherwise.

Grade	Vinyl acetate content, wt %	Melt index dg/min	Density, g/cc	DSC melt point, °C	Vicat softening point, °C	Anti-oxidant type
	ASTM E168	ASTM D1238	ASTM D792	ASTM D3418	ASTM D1525	
750	9	7	0.930	98	75	BHT
760	9.3	2	0.930	100	82	BHT
760Q	9.3	2	0.930	100	82	BHT (high)
770	9.5	0.8	0.930	96	80	BHT
670	12	0.35	0.933	95	79	BHT
660	12	2.5	0.933	96	74	BHT
650Q	12	8	0.933	95	65	BHT
560	15	2.5	0.935	92	71	BHT
550	15	8	0.935	85	62	BHT
470	18	0.7	0.941	89	68	BHT
460	18	2.5	0.941	88	64	BHT
450	18	8	0.941	86	61	BHT
440	18	30	0.927	84	53	BHT
420	18	150	0.937	73	53	BHT
410	18	500	0.934	73	53	BHT
360	25	2	0.948	78	53	BHT
350	25	19	0.948	74	46	BHT
265	28	3	0.951	73	49	BHT
260	28	6	0.955	75	46	BHT
250	28	25	0.950	70	42	BHT
240W	28	43	0.951	74	40	BHT
220W	28	150	0.951	70	--	BHT
210W	28	400	0.951	60	39	BHT
150	32	43	0.957	63	36	BHT
150W	32	43	0.957	63	36	BHT
40L-03	40	3	0.967	58	26	BHT
40W	40	52	0.965	47	27	BHT
Terpolymer (1% MAA)						
4355	25	6	0.952	76	--	BHT
4320	25	150	0.947	70	--	BHT
4310	25	500	0.945	66	--	BHT
4260	28	6	0.955	72	--	BHT
ELVAX™ grades available in EMEA only						
760A	9.3	2	0.930	98	75	BHT
660A	12	2.5	0.930	95	71	BHT
560A	15	2.5	0.940	91	66	BHT
550A	15	8	0.935	90	62	BHT
470A	18	0.7	0.940	89	66	BHT
460A	18	2.5	0.940	87	59	BHT
450A	18	8	0.941	86	61	BHT
420A	18	150	0.937	82	--	BHT
360A	25	2	0.950	80	49	BHT
265A	28	3	0.950	75	49	BHT
260A	28	6	0.950	74	43	BHT
250A	28	25	0.950	70	42	BHT
240A	28	43	0.951	74	40	BHT

BHT = Butylated Hydroxytoluene

Packaging applications

ELVAX™ performance properties for packaging include low seal initiation temperatures for fast packaging speeds, low shrink temperature, great clarity, enhanced flexibility, increased impact strength, improved puncture resistance, and excellent flex-crack resistance. ELVAX™ provides excellent adhesion to other polymers and is commonly used as a tie layer in coextrusions with dissimilar surfaces.

Typical packaging applications include cheese packaging, cereal and cracker box liners, fresh meat barrier packaging, caps and closures, and medical packaging. ELVAX™ resins can be made into blown or cast monolayer and coextruded films, extrusion coated onto various substrates, or blended with other resins. Some grades can be used for molded or extruded liner seals inside plastic and metal bottle caps.

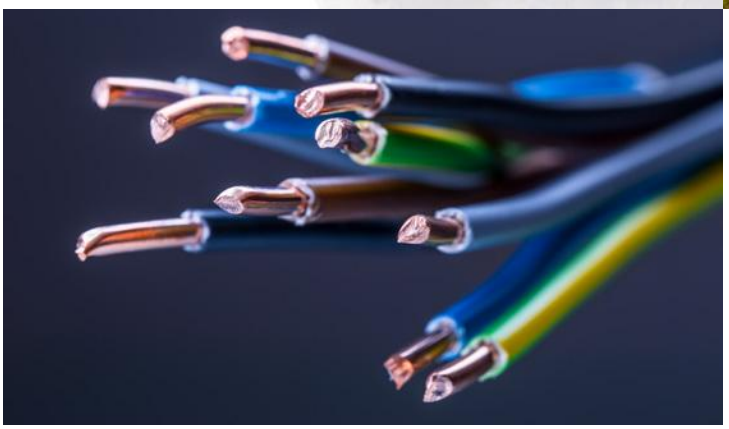
Table 2: ELVAX™ grades for Packaging applications
Grades are listed by vinyl acetate content and are available globally unless indicated otherwise.

Grade	Vinyl acetate content, wt%	Melt index, dg/min	Density, g/cc	DSC melt point, °C	Vicat softening point, °C	Anti-xidant type	Additives	
							Slip	Antiblock
	ASTM E168	ASTM D1238	ASTM D792	ASTM D3418	ASTM D1525			
3120	7.5	1.2	0.93	99	84	BHT	Y	Y
3124	9	7	0.93	98	77	BHT		
3128-1	9.3	2	0.93	99	77	BHT		
3129-1	10	0.35	0.93	100	87	BHT		
3135SB	12	0.35	0.93	97	81	BHT	Y	Y
3135X	12	0.35	0.93	95	82	BHT		
3135XZ	12	0.35	0.93	95	82	non-BHT		
3130	12	2.5	0.93	95	76	BHT		
3150	15	2.5	0.94	92	69	BHT		
3155	15.5	25	0.94	87	55	BHT		
3165	18	0.7	0.94	89	69	BHT		
3165LG	18	0.7	0.94	89	69	BHT		
3165SB	18	0.7	0.94	88	67	BHT	Y	Y
3169Z	18	1.5	0.95	89	68	non-BHT	Y	Y
3170	18	2.5	0.94	87	65	BHT		
3170SHB	18	2.5	0.94	87	65	BHT	Y	Y
3172Z	18	2.5	0.94	88	67	non-BHT	Y	Y
3174	18	8	0.94	86	61	BHT		
3174SHB	18	8	0.94	87	61	BHT	Y	Y
3176	18	30	0.94	84	54	BHT	Y	
3176BFZ	18	30	0.94	84	54	non-BHT		
3176SB	18	30	0.94	84	54	BHT	Y	Y
3178Z	20	20	0.94	81	50	non-BHT		
3200-2	22.5	32	0.94	71	55	BHT		
3190	25	2	0.95	77	52	BHT		
3182	28	3	0.95	73	49	BHT		
3182-2	28	3	0.95	72	49	non-BHT		
3175	28	6	0.95	73	47	BHT		
3180	28	25	0.95	70	43	BHT		
3180Z	28	25	0.95	70	43	non-BHT		
3185	32	43	0.96	61	40	BHT		
CE9619-1	13.1	3.8	1.06	87	--	BHT	7%	20%
ELVAX™ grades available in EMEA only								
3150A	15	2.5	0.94	91	66	BHT		
3165A	18	0.7	0.94	89	66	BHT		
3165VLGA	18	0.7	0.94	89	69	BHT		
3170A	18	2.5	0.94	87	59	BHT		
3190A	25	2	0.95	80	49	BHT		
3175LGA	28	6	0.95	74	43	BHT		
3182A	28	3	0.95	75	46	BHT		

BHT = Butylated Hydroxytoluene LG = Low gel VLG = Very low gel Z = non-BHT CE = Concentrate

Find out more

For additional information about specific ELVAX™ grades, check out the ELVAX™ product data sheets on our website or contact a Dow representative.



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