Ethyl Methyl Acrylate Copolymers (*EMAC*) and Ethyl Butyl Acrylate Copolymers (*EBAC*) Preliminary Material Selector Guide

Resin Properties	ASTM Test Method	Products													
		SP2255	SP2258	SP2205	SP2207	SP2220	SP2202	SP2260	SP1400	SP2268	SP1305	SP1307	SP1330	SP1802	SP1903
Acrylate Comonomer, wt %		18 MA	18 MA	20 MA	20 MA	20 MA	21.5 MA	24 MA	24 MA	24 MA	20 MA (+)	20 MA (+)	22 MA (+)	22.5 BA	22 BA (+)
Melt Index,[1] g/10 min	D 1238	2.1	2.1	2	6	20	0.4	2.1	1	10	2	6	2	0.5	0.45
Density, g/cm^3	D 792	0.943	0.943	0.941	0.940	0.941	0.943	0.944	0.946	0.945	0.942	0.942	0.948	0.927	0.927
Slip Level, ppm		1,950	2,400												
Antiblock Level, ppm		6,000	10,000												
Melting Point, °C	D 3418	82	82	82	83	82	81	78	75	75	93	93	93	87	99
Vicat Softening Temp, °C	D 1525	60	56	55	52	47	53	50	47	43	50	45	49	60	55
Shore D Hardness	D 2240	36	37	40	40	36	40	37	35	34	37	35	37	40	40
Tensile Strength @ Break,[2] psi	D 638	1,940	1,700	1,780	1,555	1,000	2,115	1,615	1,855	1,100	1,620	1,380	1,565	1,270	1,890
Tensile Strength @ Yield,[2] psi	D 638	1,940	1,700	1,780	1,555	1,000	2,115	1,620	1,855	1,100	1,620	1,380	1,565	1,280	1,890
Elongation @ Break,[2] %	D 638	760	730	800	805	675	820	835	925	815	815	825	865	730	775
Typical Applications		Thin, soft films (blown or cast)	Thin, soft films (blown or cast)	Coextrusion, compounding, and blow molding	Extrusion coating, tie layers, and masterbatch	Extrusion coating of fabrics and irregular surfaces, and injection molding	Heavy-guage films and impact modifiers	Tie layers and heat-seal applications	Coextrusion, tie layers, and compounding	Injection molding and extrusion coating	*EMAC*+ resin, coextrusion and blending	*EMAC*+ resin, coextrusion and tie layers	*EMAC*+ resin, coextrusion and blending	*EBAC* resin, blown film, compounding, and coextrusion	*EBAC*+ resin, blown film, compounding, and coextrusion

[1]*ASTM D 1238, condition 190°C/2.16 kg*
[2]A*STM D 638, condition 20 in./min (50.8 mm/min)*

Properties reported here are based on limited testing. Eastman makes no representation that the material in any particular shipment will conform exactly to the values given.

Regulatory Status: *EMAC* and *EMAC*+ specialty polymers comply with the compositional requirements of U.S. Food and Drug Administration regulations at 21 CFR 177.1340. The use is subject to the limitations in this regulation, including the requirement that the finished food-contact article must meet certain extraction limitations by tests that should be selected from the tables in 21 CFR 176.170(c) according to the time, temperature, and food type associated with the intended use.

EBAC and *EBAC*+ specialty polymers are lawful for use as components of a food-packaging adhesive under the conditions defined in regulations administered by the U.S. Food and Drug Administration at 21 CFR 175.105.

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