



LOW DENSITY POLYETHYLENE

BRALEN+
TIPOLEN



Elmer Kereskedelmi és Szolgáltató Kft.

Székhely: H-1145 Budapest, Amerikai út 98.

Tel: +36 (1) 445-1951, Fax: +36 (1) 445-1968

E-mail: elmer@ciklo-group.com

www.elmer.hu





Grade/Parameter	Melt Mass - Flow Rate (MFR) 190 °C/2.16 kg	Density (23 °C)	Tensile Strength (MD/TD) *	Tensile Strain at Break (MD/TD) *	Dart Drop *	Haze *	Tensile Stress at Yield	Vicat Softening Temperature	Additives	Recommended Film Thickness	Recommended Processing Conditions	Application
Units	g/10 min	kg/m ³	MPa	%	g	%	MPa	°C	ppm	mm	°C	
Test Methods	ISO 1133-1	ISO 1183-1	ISO 527-1,3	ISO 527-1,3	ISO 7765-1 method A	ASTM D1003	ISO 527-1,2	ISO 306/A 50	-	-	-	

GRADES FOR FILM APPLICATIONS

FA 03-01	0.25	920	27/25	200/500	280	15	-	93	-	0.070-0.220	170-220	heavy duty packaging, shrink hoods, agricultural films
FB 03-02	0.3	924	27/25	200/500	250	14	-	96	-	0.070-0.220	170-220	heavy duty packaging, shrink hoods, agricultural films
FC 03-03	0.3	927	30/27	250/600	180	7	-	102	-	0.060-0.220	170-220	collation shrink films, small blow mouldings
FB 08-12	0.8	924	26/24	300/600	150	8	-	96	-	0.025-0.100	170-220	shopper bags, sanitary films, surface protection films
FB 08-50	0.8	924	24/22	300/600	150	9	-	96	SA(E), 500 AB, 900	0.025-0.080	170-220	freezer films, laminating films, shopper bags
FC 08-13	0.8	927	27/22	300/600	120	6.5	-	100	-	0.025-0.080	170-220	collation shrink films, fine shrink films, high clarity films
FB 2-16	2	924	25/21	250/600	110	8	-	94	-	0.020-0.100	160-200	general purpose films, fine shrink films, high clarity films
FB 2-51	2	924	25/21	250/600	110	8	-	94	SA(E), 500 AB, 1000	0.020-0.060	160-200	general purpose films, freezer films, hygiene and food packaging, FFS films
FB 4-52	4	924	19/16	300/600	100	9	-	92	SA(E), 600 AB, 1800	0.015-0.040	150-190	cast films, high clarity films, clothes protection films, very thin gauge films, thin gauge and laminating films, cling films
FD 4-55	3.5	933	22/20	500/650	90	9	-	109	SA(E), 1000 AB, 1000	0.015-0.060	170-220	fine shrink films, hygienic films

GRADES FOR NON-FILM APPLICATIONS

MB 7-30	7	924	-	-	-	-	9	82	-	-	170-220	injection moulding, partially extrusion coating
MB 19-37	19	924	-	-	-	-	8	80	-	-	180-230	injection moulding
MB 36-36	36	924	-	-	-	-	10	85	-	-	180-230	injection moulding, lids, closures

Additives:
SA (E) slip agent erucamide
AB antiblocking agent

Notes:
Typical properties, not be used as specification.
* Typical properties tested using 0.050 mm thick blown film extruded at melt temperature of 180 °C (for MFR 0.3-2), or at 170 °C (for MFR 4), and at blow up ratio 2.5:1.



Grade/Parameter	Melt Mass - Flow Rate (MFR) 190 °C/2.16 kg	Density (23 °C) **	Tensile Strength (MD/TD) *	Tensile Strain at Break (MD/TD) *	Vicat Softening Temperature **	Dart Drop *	Shore D Hardness **	Haze *	Additives	Recommended Thickness	Application
Units	g/10 min	kg/m ³	MPa	%	°C	g	-	%	-	mm	-
Test methods	ISO 1133-1	ISO 1183-2	ISO 527	ISO 527	ISO 306 /A120	ISO 7765-1 method A	ISO 868	ISO 14 782	-	-	-
FA 244-51	0.3	920	21/22	300/550	92	270	49	12	-	0.07-0.16	heavy duty bags, shrink films, carrier bags, packaging films, household films, films for laminating, agricultural films, silage films, blow moulded products, bottles
FB 243-51	0.8	921	26/22	270/600	96	111	48	9	-	0.04-0.10	carrier bags, household films, packaging films, films for laminating, small blow moulded products, bottles
FB 243-55	0.8	922	25/20	230/550	96	110	48	6	SA(E), AB	0.04-0.10	carrier bags, household films, packaging films
FC 243-51	2	922	24/19	260/590	94	85	48	9	-	0.04-0.08	general purpose films, bubble films, foamed sheets
FC 243-55	2	922	24/19	230/560	94	92	48	9	SA(E), AB	0.04-0.08	general purpose films
FD 243-51	4	922	22/18	280/580	92	80	48	8	-	0.04-0.08	high clarity fine films, caps
FD 243-55	4	923	20/16	270/560	92	80	48	8	SA(E), AB	0.04-0.08	high clarity fine films, caps

Additives:
SA (E) slip agent erucamide
AB antiblocking agent

Notes:
* Haze, Dart Drop, Tensile Strength and Tensile Strain at Break have been measured on film – thickness of 0.07 mm (MFR = 0.3 g/10 min), and 0.04 mm (MFR more than 0.3 g/10 min), blow up ratio 2:1

** Density, Vicat Softening Temperature and Shore D Hardness have been measured on standard pressed specimens (ISO 293) conditioned at room temperature (ISO 291)