

Grade	Pellet	Film samples					Injection-molded samples		Film samples						
	Lightness	Density	Young's modulus	Yield stress	Elongation at break	Elongation at break (CV)	Charpy impact strength	Flexural modulus	Melting Temperature	PP crystallinity index	PE index	PS index	SAXS integrated intensity	Foreign matter content	Onset decomposition temperature
	-	g/cm ³	MPa	MPa	%	-	kJ/m ²	MPa	°C	-	-	-	-	wt%	°C
A grade : Grades intended for horizontal recycling															
A5 High ductility / Low melting point	75	0.90	600	26.6	1156	0.07	5.0	1000	143	0.79	0.00	0.00	1.4	0.1	396
A4 High ductility	70	0.90	720	29.5	1033	0.12	4.7	1163	164	0.83	0.04	0.00	1.6	0.0	403
A3 High stiffness	76	0.90	913	32.9	182	0.74	3.9	1510	166	0.87	0.03	0.00	3.7	0.1	395
A2 High stiffness / High impact strength	82	0.90	810	27.4	912	0.20	17.4	1520	166	0.88	0.09	0.00	1.9	0.0	400
A1 High impact strength	80	0.90	724	22.3	164	0.36	9.3	1213	165	0.92	0.15	0.00	18.1	0.4	396
B grade : Grades intended for cascade recycling															
B5 High ductility / Low decomposition onset temperature	55	0.90	670	28.3	876	0.12	4.2	1165	158	0.81	0.01	0.00	33.1	1.2	348
B4 Low ductility and PS-containing	46	0.89	600	23.1	170	0.59	5.2	1125	163	0.80	0.09	0.11	14.0	0.3	390
B3 High impact resistance with foreign matter	20	0.91	805	24.9	141	0.55	7.6	1288	165	0.90	0.13	0.00	47.7	2.3	403
B2 High impact resistance with PE, PS, and foreign matter	84	0.91	710	20.6	200	0.37	10.8	1110	164	0.91	0.33	0.25	294.1	5.5	393
B1 Contains PE, PS, and foreign matter, with a low decomposition onset temperature	32	0.94	550	20.5	22	0.43	4.6	915	163	0.85	0.46	0.45	49.2	2.4	360

PE: Polyethylene、PS: Polystyrene、SAXS: Small-Angle X-ray Scattering