

Tairilac ABS Resin

ABS (acrylonitrile-butadiene-styrene)



Properties (1/3)

Property	Unit	Test Method	Test condition	Grade						
				General Purpose				High Gloss General Purpose		
				AG1000	AG12A0	AG15A0	AG15E0	AG15A1	AG15A2	AG15E1
Tensile Strength	kg/cm ² (Mpa)	ASTM D-638 (ISO527)	23°C	390 (38)	480 (47)	510 (50)	530 (52)	510 (50)	470 (46)	530 (52)
Flexural Strength	kg/cm ² (Mpa)	ASTM D-790 (ISO178)	23°C	580 (57)	750 (74)	850 (84)	870 (86)	850 (84)	840 (83)	870 (86)
Flexural Modulus	kg/cm ² (Mpa)	ASTM D-790 (ISO178)	23°C	19500 (1910)	25000 (2450)	27000 (2650)	28000 (2750)	27000 (2650)	28000 (2750)	28000 (2750)
Rockwell hardness		ASTM D-785 (ISO2039/2)	23°C	R-95	R-106	R-110	R-110	R-110	R-108	R-110
Izod Impact Strength	kg-cm (J/m) (Mpa)	ASTM D-256 (ISOR180)	23°C 1/4" thick	40 (392)	30 (294)	20 (196)	14 (137)	20 (196)	20 (196)	14 (137)
Vicat Softening Point	°C	ASTM D-1525 (ISO306)	1 Kg load	101	103	104	103	104	104	103
Heat Deflection Temperature	°C	ASTM D-648 (ISO75/A)	Unannealed	86	88	89	88	89	89	88
			Annealed (8 °C x 8hr)	98	100	101	100	101	101	100
Melt Flow Index	g/10 min.	ASTM D-1238 (ISO1133)	200°C	0.4	1.6	1.7	1.9	1.6	1.7	1.8
			220°C	10	17	19	21	17	19	20
Specific Gravity		ASTM D-792 (ISO1183)	23°C / 23°C	1.03	1.04	1.05	1.05	1.05	1.05	1.05
Flammability		UL-94	FILE NO E162823	1/16" HB All Color	1/16" HB All Color	1/16" HB All Color	1/16" HB All Color	1/16" HB All Color	1/16" HB All Color	1/16" HB All Color
Characteristics				Super High Impact	High Impact, Injection Grade	High rigid, injection grade	High gloss, high rigid	high gloss, super high impact	High gloss, high impact	High gloss, high rigid
Application				Helmets, shoe heels, pipe fittings, products of low-temp. usage	Toys, shoe heels, clock housing, stereo housing, suitcase, plates, refrigerator liner	Shoe heels, toys, clock housing, stereo housing, suitcase		Same as AG15A0		



Properties (2/3)

Property	Unit	Test Method	Test condition	Grade				
				High Flow Grade	Heat Resistant Grade		Metal Plating Grade	Transparent Grade
				AF3500	AX4000	AX4100	AP22AT	AT5500
Tensile Strength	kg/cm ² (Mpa)	ASTM D-638 (ISO527)	23°C	410 (40)	400 (39)	400 (39)	440 (43)	450 (44)
Flexural Strength	kg/cm ² (Mpa)	ASTM D-790 (ISO178)	23°C	690 (68)	700 (69)	700 (69)	730 (72)	730 (72)
Flexural Modulus	kg/cm ² (Mpa)	ASTM D-790 (ISO178)	23°C	24000 (2350)	26000 (2550)	25000 (2450)	24000 (2350)	22000 (2160)
Rockwell hardness		ASTM D-785 (ISO2039/2)	23°C	R-104	R-106	R-107	R-104	R-105
Izod Impact Strength	kg-cm (J/m) (Mpa)	ASTM D-256 (ISOR180)	23°C 1/4" thick	30 (294)	17 (167)	10 (98)	25 (245)	15 (147)
Vicat Softening Point	°C	ASTM D-1525 (ISO306)	1 Kg load	103	116	128	102	102
Heat Deflection Temperature	°C	ASTM D-648 (ISO75/A)	Unannealed 18.6 kg/cm ² (1/2" thick)	88	99	109	87	87
			Annealed (8 °C x 8hr)	100	110	120	99	99
Melt Flow Index	g/10 min.	ASTM D-1238 (ISO1133)	200°C x5kgf(49N)	5.0	-	-	1.4	2.1
			220°C x10kgf(98N)	50	10	5	15	26
Specific Gravity		ASTM D-792 (ISO1183)	23°C / 23°C	1.04	1.05	1.05	1.04	1.07
Flammability		UL-94	FILE NO E162823	1/16" HB All Color				1/16" HB All Color
Characteristics				High flow, high impact	High heat resistance		High impact metal plating	Transparent
Application				Housings of phones, calculators, stereos, and typewriters; toys, chairs, motorcycle & scanner	Parts of cars, electrical appliances and hair dryers, TV housing		Wheel cover, knobs, tags, door handle of refrigerator, cassettes	Plates, drawers & plates in refrigerators; laboratory containers, batteries



Properties (3/3)

Property	Unit	Test Method	Test condition	Grade						
				Extrusion Grade				Self Extinguishing Grade		
				AG10NP	AG10AP	AE8000	AE8200	ANC100	ANC120	ANC200
Tensile Strength	kg/cm ² (Mpa)	ASTM D-638 (ISO527)	23°C	490 (48)	350 (34)	440 (43)	455 (45)	400 (39)	400 (39)	400 (39)
Flexural Strength	kg/cm ² (Mpa)	ASTM D-790 (ISO178)	23°C	740 (73)	580 (57)	700 (69)	680 (67)	620 (61)	650 (64)	560 (55)
Flexural Modulus	kg/cm ² (Mpa)	ASTM D-790 (ISO178)	23°C	25000 (2450)	20000 (1960)	23000 (2260)	23000 (2260)	25000 (2450)	25500 (2500)	22000 (2160)
Rockwell hardness		ASTM D-785 (ISO2039/2)	23°C	R-102	R-96	R-100	R-105	R-101	R-101	R-97
Izod Impact Strength	kg-cm (J/m) (Mpa)	ASTM D-256 (ISOR180)	23°C 1/4" thick	46 (451)	42 (412)	35 (343)	34 (333)	18 (176)	22 (216)	18 (176)
Vicat Softening Point	°C	ASTM D-1525 (ISO306)	1 Kg load	107	100	107	103	90	93	90
Heat Deflection Temperature	°C	ASTM D-648 (ISO75/A)	Unannealed 18.6 kg/cm ² (1/2" thick)	92	85	91	88	80	81	80
			Annealed (8°C x 8hr)	104	97	104	100	85	88	85
Melt Flow Index	g/10 min.	ASTM D-1238 (ISO1133)	200°C x5kgf(49N)	-	-	-	-	4.5	4.5	3.6
			220°C x10kgf(98N)	6.5	4.0	3.5	15	-	-	-
Specific Gravity		ASTM D-792 (ISO1183)	23°C / 23°C	1.04	1.04	1.04	1.04	1.21	1.19	1.19
Flammability		UL-94	FILE NO E162823		1/16" HB All Color	1/16" HB All Color	1/16" HB All Color	1/16" V0 All Color	1/10" V0 All Color	1/10" V0 All Color
Characteristics				Extrusion super-high impact high rigid		Extrusion		Flame retardant		Flame retardant Weather- resistance
Application				Extrusion products, crash helmet, pipes		Extrusion products, suitcases, plates, inner box of refrigerator		Flame retardant materials; housing of TV, computers & VCR		

All tests were run under laboratory condition, ASTM, ISO(where applicable) testing procedures.

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