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台湾化學纖維股份有限公司
FORMOSA CHEMICALS & FIBRE CORPORATION

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項 目 Property	單 位 Unit	試驗方法 Test Method	試 驗 條 件 Test Condition	一般級 General Purpose Grade							深黑級 Jet Black Grade			
				AG100H	AG12A0	AG12A3	AG15A1-H	AG15A3	AG15E1	AG15E3	AE10EPJ	AG12AJ	AG15AB	AG15AJ
熔融指數 Melt Flow Index	g/10 min	ASTM D-1238 (ISO 1133)	220℃ × 10kg	8.0	19	18	21	22	25	18	5.0	20	24	25
			200℃ × 5kg	-	1.6	1.6	2.2	2.2	2.4	1.6	-	1.9	2.4	2.4
Izod 衝擊強度 Izod Impact Strength	kg-cm/cm	ASTM D-256	23℃ , 1/4" 厚 , Notched	41	30	32	24	24	17	18	45	34	19	23
Charpy 衝擊強度 Charpy Impact Strength	kJ/m²	ISO 179	23℃ , 4mm 厚 , Notched	40	30	31	23	26	16	18	42	34	21	24
比重 Specific Gravity	-	ASTM D-792 (ISO 1183)	23℃ /23℃	1.04	1.04	1.04	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
抗張強度 Tensile Strength	kg/cm² (MPa)	ASTM D-638 (ISO 527)	23℃ , 50mm/min	370 (38)	420 (44)	430 (43)	460 (45)	470 (41)	480 (46)	500 (49)	370 (37)	400 (40)	470 (47)	440 (44)
彎曲強度 Flexural Strength	kg/cm²	ASTM D-790	23 °C , 15mm/min	620	740	730	810	820	840	860	630	680	830	770
	MPa	ISO 178	23 °C , 2mm/min	55	66	64	68	60	70	72	51	58	69	66
彎曲模數 Flexural Modulus	kg/cm²	ASTM D-790	23 °C , 15mm/min	19,000	24,000	23,000	26,000	25,000	26,000	26,000	20,000	21,000	25,000	25,000
	MPa	ISO 178	23 °C , 2mm/min	1,900	2,300	2,200	2,400	2,400	2,500	2,500	1,600	2,000	2,400	2,300
洛氏硬度 Rockwell Hardness	R-scale	ASTM D-785 (ISO 2039/2)	23℃	R-95	R-105	R-106	R-110	R-109	R-111	R-111	R-96	R-103	R-109	R-108
衛氏軟化點 Vicat Softening Point	℃	ASTM D-1525 (ISO 306)	Annealed, 50N, 50℃ /h	95	93	93	94	94	95	93	94	95	96	95
熱變形溫度 Heat Deflection Temperature	℃	ASTM D-648	Unannealed, 1.8Mpa 1/4" 厚 , 120℃ /h	83	84	84	85	85	86	85	86	84	86	86
			Annealed, 1.8Mpa 1/4" 厚 , 120℃ /h	93	94	94	95	95	96	95	96	96	96	96
		ISO 75/A	Annealed, 1.8Mpa 4mm 厚 , 120℃ /h	87	88	88	90	90	91	90	93	91	94	92
收縮率 Molding Shrinkage	%	ASTM D-955 (ISO 2577)	3.2mm	0.4~0.7	0.4~0.7	0.4~0.7	0.4~0.7	0.4~0.7	0.4~0.7	0.4~0.7	0.4~0.7	0.4~0.7	0.4~0.7	0.4~0.7
燃燒性 Flammability	-	UL-94	FILE NO. E162823	1.5mm HB 3.0mm HB All Color	1.5mm HB 3.0mm HB All Color	1.5-1.65mm HB All Color	1.0mm HB 1.5mm HB 3.0mm HB All Color	1.0mm HB 1.5-1.65mm HB All Color	1.6mm HB All Color	1.5mm HB 3.0mm HB All Color	1.5mm HB 3.0mm HB All Color	1.6-1.76 HB BK	1.5mm HB 3.0mm HB BK	1.5mm HB 3.0mm HB BK
特性 Speciality				超高耐衝擊性 Super high impact	高光澤性、 高耐衝擊性 High gloss, High impact	高耐衝擊性 High impact	高光澤性、 中耐衝擊性 High gloss, Medium impact	高光澤性、 中耐衝擊性 High gloss, Medium impact	高光澤性、高剛性 High gloss, High rigid		押出成型用、 超高耐衝擊性、 高剛性、低溫耐衝擊 Extrusion molding, Super high impact, High rigid, Low temperature impact	深黑色、 高耐衝擊性 Jet black, High impact	深黑色、 高光澤性 Jet black, High gloss	深黑色 Jet black
用途 Application				盔帽、鞋跟、 管配件、低溫用品 Helmets, Shoe heels, Pipe fittings, Products of low-temp usage	鞋跟、玩具、時鐘外殼、音響外殼、 手提箱、板狀製品 Shoe heels, Toys, Clock housing, Stereo housing, Suitcase, The plate-like products		玩具、計算器、電話、時鐘外殼、音響外殼、手提箱 Toys, Caculators, Phone, Clock housing, Stereo housing, Suitcase			管狀製品 Pipes		黑色零配件、LED-TV 外殼、All-in-one PC 外殼 Black purpose parts, LED-TV housing, All-in-one PC housing		

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項 目 Property	單 位 Unit	試驗方法 Test Method	試 驗 條 件 Test Condition	高流動級 High Flow Grade				耐熱級 Heat Resistant General Grade			押出級 Extrusion Grade			
				AF3500	AF3530	AF3535	AF3560	AX4000	AX4100	AX4300	AE8000	AE8700	AG10AP	AG10NP
熔融指數 Melt Flow Index	g/10 min	ASTM D-1238 (ISO 1133)	220℃ × 10kg	47	27	40	53	9.0	4.5	4.0	4.5	3.5	4.0	5.5
			200℃ × 5kg	5.0	3.0	4.2	5.2	-	-	-	-	-	-	-
Izod 衝擊強度 Izod Impact Strength	kg-cm/cm	ASTM D-256	23℃ , 1/4" 厚 , Notched	32	27	23	12	20	15	29	45	35	51	44
Charpy 衝擊強度 Charpy Impact Strength	kJ/m²	ISO 179	23℃ , 4mm 厚 , Notched	31	30	26	14	21	16	28	47	40	50	45
比重 Specific Gravity	-	ASTM D-792 (ISO 1183)	23℃ /23℃	1.04	1.04	1.04	1.04	1.05	1.05	1.05	1.04	1.04	1.04	1.04
抗張強度 Tensile Strength	kg/cm² (MPa)	ASTM D-638 (ISO 527)	23℃ , 50mm/min	390 (38)	420 (40)	440 (42)	460 (43)	420 (41)	400 (38)	450 (42)	440 (42)	480 (46)	370 (37)	430 (42)
彎曲強度 Flexural Strength	kg/cm²	ASTM D-790	23 °C , 15mm/min	670	720	750	790	770	740	780	740	820	640	730
	MPa	ISO 178	23 °C , 2mm/min	50	52	56	58	63	61	62	51	69	46	58
彎曲模數 Flexural Modulus	kg/cm²	ASTM D-790	23 °C , 15mm/min	20,000	22,000	23,000	24,000	24,000	24,000	22,000	22,000	25,000	19,000	22,000
	MPa	ISO 178	23 °C , 2mm/min	1,500	1,600	1,700	1,700	2,100	2,100	2,000	1,500	2,300	1,500	1,900
洛氏硬度 Rockwell Hardness	R-scale	ASTM D-785 (ISO 2039/2)	23℃	R-102	R-105	R-105	R-109	R-109	R-110	R-106	R-103	R-109	R-93	R-102
衛氏軟化點 Vicat Softening Point	℃	ASTM D-1525 (ISO 306)	Annealed, 50N, 50℃ /h	92	93	93	93	100	106	99	94	95	91	94
熱變形溫度 Heat Deflection Temperature	℃	ASTM D-648	Unannealed, 1.8Mpa 1/4" 厚 , 120℃ /h	83	85	86	84	93	102	94	87	90	84	88
			Annealed, 1.8Mpa 1/4" 厚 , 120℃ /h	94	93	94	96	104	112	104	96	99	94	98
		ISO 75/A	Annealed, 1.8Mpa 4mm 厚 , 120℃ /h	90	91	92	91	96	102	96	92	87	92	93
收縮率 Molding Shrinkage	%	ASTM D-955 (ISO 2577)	3.2mm	0.4~0.7	0.4~0.7	0.4~0.7	0.4~0.7	0.3~0.6	0.3~0.6	0.3~0.6	0.4~0.7	0.4~0.7	0.4~0.7	0.4~0.7
燃燒性 Flammability	-	UL-94	FILE NO. E162823	1.5mm HB 3.0mm HB All Color	0.8mm HB 1.5mm HB 3.0mm HB All Color	0.8mm HB 1.0mm HB 1.5-1.7mm HB All Color	1.5mm HB 3.0mm HB All Color	1.5mm HB All Color	1.5mm HB All Color	1.5mm HB 3.0mm HB All Color	1.6mm HB All Color	-	1.6mm HB All Color	1.6-1.76mm HB All Color
特性 Speciality				高流動性、 高耐衝擊性 High flow, High impact	高流動性、 高耐衝擊性、 耐化學性 High flow, High impact, Chemical resistant	高流動性、高耐衝擊性 High flow, High impact		耐熱性 Medium high heat	超耐熱性 Super high heat	耐熱性、 押出吹塑 Medium high heat, Extrusion blow molding	押出成型用、超高耐衝擊性、高剛性 Extrusion molding, Super high impact, High rigid			
用途 Application				音響、大型玩具、椅子、機車外殼、事務機外殼 Housing of stereos, Large toys, Chairs, Motorcycles, OA machines				汽車零件、電器用品、吹風機、耐熱組件 Parts of cars, Electrical appliances, Hair dryer, Heat resistant parts			押出成型製品、安全帽、管狀製品、鞋跟 Extrusion products, Crash helmet, Pipes, Shoe heels			

以上數值系參考 ASTM/ISO 方法所測得，僅供選擇用途品級之參考。 All tests were run under laboratory conditions, ASTM, ISO testing procedures.

The data are intended as a general guide only.

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項目 Property	單位 Unit	試驗方法 Test Method	試驗條件 Test Condition	耐燃級 Self Extinguishing Grade		電鍍級 Metal Plating Grade	衛材級 Health Care Grade
				ANC100	ANC120	AG23AT	AG16A1
熔融指數 Melt Flow Index	g/10 min	ASTM D-1238 (ISO 1133)	220°C × 10kg	-	-	20	11
			200°C × 5kg	6.0	5.5	2.0	1.0
Izod 衝擊強度 Izod Impact Strength	kg-cm/cm	ASTM D-256	23°C , 1/4" 厚 , Notched	22	26	32	28
Charpy 衝擊強度 Charpy Impact Strength	kJ/m²	ISO 179	23°C , 4mm 厚 , Notched	17	18	33	33
比重 Specific Gravity	-	ASTM D-792 (ISO 1183)	23°C /23°C	1.21	1.19	1.04	1.04
抗張強度 Tensile Strength	kg/cm² (MPa)	ASTM D-638 (ISO 527)	23°C , 50mm/min	420 (40)	400 (39)	440 (44)	510 (47)
彎曲強度 Flexural Strength	kg/cm²	ASTM D-790	23 °C , 15mm/min	720	690	740	880
	MPa	ISO 178	23 °C , 2mm/min	59	59	62	72
彎曲模數 Flexural Modulus	kg/cm²	ASTM D-790	23 °C , 15mm/min	24,000	23,000	23,000	26,000
	MPa	ISO 178	23 °C , 2mm/min	2,000	2,000	2,000	2,300
洛氏硬度 Rockwell Hardness	R-scale	ASTM D-785 (ISO 2039/2)	23°C	R-101	R-100	R-106	R-111
衛氏軟化點 Vicat Softening Point	°C	ASTM D-1525 (ISO 306)	Annealed, 50N, 50°C /h	80	83	94	94
熱變形溫度 Heat Deflection Temperature	°C	ASTM D-648	Unannealed, 1.8Mpa 1/4" 厚 , 120°C /h	76	74	86	88
			Annealed, 1.8Mpa 1/4" 厚 , 120°C /h	90	84	96	94
		ISO 75/A	Annealed, 1.8Mpa 4mm 厚 , 120°C /h	76	79	93	88
收縮率 Molding Shrinkage	%	ASTM D-955 (ISO 2577)	3.2mm	0.3~0.6	0.3~0.6	0.4~0.7	0.4~0.7
燃燒性 Flammability	-	UL-94	FILE NO. E162823	1.5mm V-0 2.3mm V-0, 5VA 2.5mm 5VA 3.0mm V-0 All Color	2.3mm V-0, 5VB 2.6mm V-0 3.0mm V-0, 5VB All Color	1.5mm HB 3.0mm HB All Color	1.5mm HB 3.0mm HB All Color
特性 Speciality				難燃性 Flame retardant		高耐衝擊性、電鍍用 High impact, Electro plating	高剛性、中耐衝擊性 High rigid, Medium impact
用途 Application				防火級材料、電視外殼、電腦外殼、事務機外殼 Flame retardant materials, Housing of LC monitor, LCD-TV computers & OA machines		汽車輪圈蓋、旋鈕、名牌、 門把、電鍍用品 Wheel cover, Knobs, Tags, Door handle, Plating products	手術刀柄、哮喘吸入器 Scalpel shank, Asthma inhaler 通過美國藥典塑膠第六級試驗 Meets the requirements of USP Plastic Class VI



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項 目 Property	單 位 Unit	試驗方法 Test Method	試 驗 條 件 Test Condition	耐候性一般射出級 Weather Resistant General Injection Grade		耐候性高流動級 Weather Resistant High Flow Grade	耐候性押出級 Weather Resistant Extrusion Grade		耐候性啞光押出級 Weather Resistant Matte Surface Extrusion Grade	耐候性耐熱級 Weather Resistant Heat Resistant General Grade	耐候性改性級 Weather Resistant Modifiable Grade
				WG1500	WG1800	WF3301	WE8303	WE8300	WE830M	WX1805	WE9100
熔融指數 Melt Flow Index	g/10 min	ASTM D-1238 (ISO 1133)	220℃ × 10kg	18	18	30	3.0	7.0	10	5.0	1.8
Izod 衝擊強度 Izod Impact Strength	kg-cm/cm	ASTM D-256	23℃ , 1/8" 厚 , Notched	13	18	20	33	15	11	15	60
Charpy 衝擊強度 Charpy Impact Strength	kJ/m²	ISO 179	23℃ , 4mm 厚 , Notched	15	23	24	34	16	11	16	65
比重 Specific Gravity	-	ASTM D-792 (ISO 1183)	23℃ /23℃	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
抗張強度 Tensile Strength	kg/cm² (MPa)	ASTM D-638 (ISO 527)	23℃ , 50mm/min	440 (40)	430 (40)	410 (38)	450 (41)	440 (39)	330 (29)	500 (46)	230 (18)
彎曲強度 Flexural Strength	kg/cm²	ASTM D-790	23 °C , 15mm/min	770	710	670	610	750	550	870	380
	MPa	ISO 178	23 °C , 2mm/min	61	57	53	45	59	41	71	22
彎曲模數 Flexural Modulus	kg/cm²	ASTM D-790	23 °C , 15mm/min	23,000	21,000	21,000	22,000	22,000	15,000	25,000	11,000
	MPa	ISO 178	23 °C , 2mm/min	2,000	1,900	1,700	1,950	2,000	1,400	2,300	1,000
洛氏硬度 Rockwell Hardness	R-scale	ASTM D-785 (ISO 2039/2)	23℃	R-103	R-100	R-96	R-102	R-101	R-85	R-109	R-53
衛氏軟化點 Vicat Softening Point	℃	ASTM D-1525 (ISO 306)	Annealed, 50N, 50℃ /h	88	90	89	93	93	87	99	83
熱變形溫度 Heat Deflection Temperature	℃	ASTM D-648	Unannealed, 1.8Mpa 1/4" 厚 , 120℃ /h	83	86	83	88	85	82	94	77
		ISO 75/A	Annealed, 1.8Mpa 4mm 厚 , 120℃ /h	88	90	90	94	91	88	100	84
收縮率 Molding Shrinkage	%	ASTM D-955 (ISO 2577)	3.2mm	0.4~0.7	0.4~0.7	0.4~0.7	0.4~0.7	0.4~0.7	0.4~0.7	0.4~0.7	0.4~0.7
燃燒性 Flammability	-	UL-94	FILE NO. E162823	1.5mm HB 3.0mm HB All Color	1.5mm HB 3.0mm HB All Color	1.5mm HB 3.0mm HB All Color	1.5mm HB 3.0mm HB All Color	1.5mm HB 3.0mm HB All Color	-	1.5mm HB 3.0mm HB All Color	-
特性 Speciality				耐候性優，顏色穩定性佳，適合戶外用產品 Weather resistance is excellent, Color stable, Suitable for outdoor use			優異耐候性， 押出成型製品 Excellent weather resistance, Extrusion products	優異耐候性，適用塑瓦改性使用 Excellent weather resistance, Suitable for plastic roof tile modified use.		汽車零件，電器用品， 耐熱組件 Parts of cars, Electrical appliances, Heat resistant parts	適用塑瓦改性使用 Suitable for plastic roof tile modified use.

TAIRISAN® SAN

項目 Property	單位 Unit	試驗方法 Test Method	試驗條件 Test Condition	一般級 General Grade	特殊級 Special Grade	特殊級 Special Grade
				NF2200	NX3200	NX3400
熔融指數 Melt Flow Index	g/10 min	ASTM D-1238 (ISO 1133)	220°C × 10kg	29	15	10
			200°C × 5kg	2.9	1.5	1.0
Izod 衝擊強度 Izod Impact Strength	kg-cm/cm	ASTM D-256	23°C , 1/4" 厚 , Notched	1.7	1.8	1.8
比重 Specific Gravity	-	ASTM D-792 (ISO 1183)	23°C /23°C	1.06	1.06	1.06
抗張強度 Tensile Strength	kg/cm² (MPa)	ASTM D-638 (ISO 527)	23°C , 50mm/min	720 (73)	800 (82)	820 (83)
彎曲強度 Flexural Strength	kg/cm²	ASTM D-790	23 °C , 15mm/min	1,200	1,200	1,200
	MPa	ISO 178	23 °C , 2mm/min	117	118	121
彎曲模數 Flexural Modulus	kg/cm²	ASTM D-790	23 °C , 15mm/min	35,000	37,000	37,000
	MPa	ISO 178	23 °C , 2mm/min	3,600	3,600	3,600
洛氏硬度 Rockwell Hardness	M-scale	ASTM D-785 (ISO 2039/2)	23°C	78	79	79
衛氏軟化點 Vicat Softening Point	°C	ASTM D-1525 (ISO 306)	Annealed, 50N, 50°C /h	101	102	102
熱變形溫度 Heat Deflection Temperature	°C	ASTM D-648	Unannealed, 1.8Mpa 1/4" 厚 , 120°C /h	94	96	97
		ISO 75/A	Annealed, 1.8Mpa 4mm 厚 , 120°C /h	102	103	104
收縮率 Molding Shrinkage	%	ASTM D-955 (ISO 2577)	3.2mm	0.4-0.7	0.4-0.7	0.4-0.7
燃燒性 Flammability	-	UL-94	FILE NO. E162823	1.5mm HB All Color	1.5mm HB All Color	1.6-1.8mm HB All Color
特性 Speciality				高流動性、一般成型用 High flow, Injection grade	耐熱性、抗化學性 High heat, Chemical resistance	耐熱性、抗化學性 High heat, Chemical resistance
用途 Application				垃圾桶、牙刷柄、燈罩、旅行杯、筆殼、化妝品容器 Trash cans, Toothbrush handles, Lamp covers, Pen tube, Cup with cover, Cosmetic cases	風扇葉片、蓄電池盒 Blade of fan, Batteries housing	風扇葉片、蓄電池盒 Blade of fan, Batteries housing





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