



 idemitsu

台化出光聚碳酸酯樹脂
FIPC Polycarbonate Resin

TARFLON™

塔夫龍™



台化出光石油化學股份有限公司

Formosa Idemitsu Petrochemical Corporation (FIPC)

成立於2001年9月1日

Establishment: 1st September, 2001

產品：聚碳酸酯樹脂

Product: Polycarbonate resin

由台灣化學纖維股份有限公司與日本出光興業株式會社，
兩大公司共同合資成立

FIPC is a joint venture between Formosa Chemicals & Fibre Corp.
and Idemitsu Kosan Co., Ltd.



50%

台灣化學纖維股份有限公司
Formosa Chemicals & Fibre Corp.

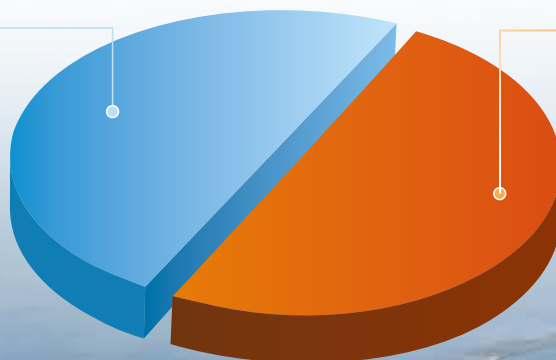
PC生產製造
Operate the Polycarbonate plant



50%

出光興業株式會社
Idemitsu Kosan Co., Ltd.

PC製程技術授權
Licensed PC process technology



PC 廠
PC plant

台化出光台北辦公室
FIPC office at Taipei

台塑麥寮工業園區

PC plant in Formosa Industrial Complex

台化出光塔夫龍™聚碳酸酯樹脂

FIPC TARFLON™ PC Grade Type

台化出光塔夫龍™提供一系列PC產品，不僅有一般型規格，也有因應市場需求所需的特殊規格。

FIPC TARFLON™ offers a variety of grades designed for not only general purpose but also special needs from market.



FN規格

用於複合的粉型 PC。FN 等級可以輕鬆與各種添加劑混合。

FN grade

Flake PC for compounding. FN grade can be blended easily with various additives.

A規格

帶有自然透明色的基礎型PC膠粒，適合複合應用。

A grade

Basic PC with natural color for injection molding or compounding.

IR規格

帶有冰藍-潔淨透明顏色的一般型PC膠粒，在射出或押出後有著良好的成形與脫膜特性，並且IR規格符合NSF/ANSI的標準

IR grade

General PC with iced-clear color and good mold release property for injection molding or extrusion. IR grade is listed in NSF/ANSI Standard 51 Food Equipment Materials.

IV規格

能有效的遮蔽UV波長390nm，產品帶有冰藍-潔淨透明的顏色，有著良好的脫模特性，可應用於車頭燈具設備及多種戶外產品的應用。

IV grade

UV-stabilized PC with UV cut-off under 390 nm, iced-clear color, and good mold release property. IV**01 grade can be used for car headlamp, lighting equipment, safety glasses, sun glasses and daylight roof, etc.

MD規格

在無塵環境所生產的光學級PC，有高的流動性和高潔淨度，主要應用於光碟材料如CD、DVD或BD產品。

MD grade

Optical PC with high flow and low-level contamination for optical media such as CD, DVD and BD.

HQ規格

在無塵環境所生產的潔淨型PC，有高潔淨度，能用於高品質的薄膜應用、LCD導光板、其他印刷應用。

HQ grade

Clean PC with low-level contamination for high-quality film/sheet of LCD or other printing applications.

LEV-KL規格

紫外線穩定 PC 比其他通用 UV-PC 具有更高的透明度。LEV-KL主要用於戶外照明LED透鏡，戶外照明LED罩殼。

LEV-KL grade

UV-stabilized PC with higher transparency than other general UV-PC. LEV-KL can be used for LED lens of outdoor lighting, LED cover for outdoor lighting.

LC規格

在無塵環境所生產的導光級PC有著非常高的流動性和高潔淨度，主要應用於顯示器導光板與現今汽車市場上最流行的日行燈。

LC grade

Light-conduct PC with high flow and low-level contamination for light guide panel and daytime running light.

Copolymer

共聚物PC，具有多種優異的性能（如低溫下高衝擊性能）詳情請聯絡FIPC銷售人員。

Copolymer

FIPC has a line up of copolymer PC with various excellent performance (e.g. high impact performance in low-temperature).
*Please contact FIPC sales staff for details.

台化出光塔夫龍™聚碳酸酯樹脂所有規格概況

FIPC TARFLON™ Overview of All Grades

商標名：塔夫龍™

Grade name TARFLON™ shows the type(feature) and viscosity index (flowability).

I R 2 2 0 0

類型 黏度代號
Type Viscosity

特點 Feature	類型 Type	流動指數 MFR ^(*1) (g/10min)						
		65	34	26	19	11	7	5
粉型PC Flake PC	FN	FN1500	-	FN1700	FN1900	FN2200	FN2500	FN2600
基礎型PC Basic PC	A	A1500	-	A1700	A1900	A2200	A2500	A2600
通用型 General 冰藍色口 Iced-clear ^(*2)	IR	-	-	IR1700	IR1900	IR2200	IR2500	-
耐候級 Weatherability UV 390nm 遮蔽 (<390nm cut) 冰藍色口 Iced-clear ^(*2)	IV	-	-	IV1701	IV1901	IV2201	IV2501	IV2601
薄膜級 For clean film/sheet	HQ	-	HQ1600	-	-	HQ2200	-	-
光碟級 For optical media	MD	MD1500	-	-	-	-	-	-
耐候級、高透光 Weatherability, high transparency	LEV-KL	-	-	LEV1700KL	-	LEV2200KL	-	-
導光級 For light conduct	LC	Please contact FIPC sales staff for details.						

(*1) 300°C, 1.2公斤。在特定的條件下所測得到的代表性數據。
(*2) 關於台化出光PC產品色口，可詢問台化出光營業人員。
(*1) 300°C, 1.2kg. These are representative values measured under certain specific condition.
(*2) Regrading FIPC products color tone. Please inquiry to FIPC sales.

台化出光塔夫龍™聚碳酸酯樹脂特性表

FIPC TARFLON™ PC Typical Property Table

TARFLON™			#15	#16	#17	#19	#22	#25	#26
ISO識別標誌		ISO identification mark							
		>PC<							
類型 Type	FN	FN1500	-	FN1700	FN1900	FN2200	FN2500	FN2600	
	A	A1500	-	A1700	A1900	A2200	A2500	A2600	
	IR	-	-	IR1700	IR1900	IR2200	IR2500	-	
	IV	-	-	IV1701	IV1901	IV2201	IV2501	IV2601	
	HQ	-	HQ1600	-	-	HQ2200	-	-	
	MD	MD1500	-	-	-	-	-	-	
	LEV-KL	-	-	LEV1700KL	-	LEV2200KL	-	-	
	LC	Please contact FIPC sales staff for details.							
性質 Property	測試方法 Method	單位 Units							
物理性質 Physical									
熔融指數 MFR	ISO 1133	g/10min	65	34	26	19	11	7	5
密度 Density	ISO 1183	g/cm³	1.2						
吸水性 Water absorption	ISO 62(50%RH 24hr)	%	0.23						
機械性質 Mechanical									
拉伸強度 Tensile stress at Yield	ISO 527-1,2	MPa	65	65	65	65	65	65	65
斷張強度 Tensile strain at break	ISO 527-1,2	%	80	95	95	95	95	90	90
彎曲強度 Flexural strength	ISO 178	MPa	90	90	90	90	90	90	90
彎曲模數 Flexural modulus	ISO178	GPa	2.3	2.3	2.3	2.3	2.3	2.3	2.3
衝擊強度 Charpy impact strength	ISO179-1(Notched)	KJ/m²	15	40	40	70	80	80	90
洛式硬度 Rockwell hardness	ISO 2049-2	R/M scale	R120/M50						
熱學性質 Thermal									
熱變形溫度 Heat deflection temperature	ISO 75-1,2	1.8 MPa	125	125	125	125	125	125	130
線性熱膨脹係數 Liner thermal expansion coefficient	ISO 11359-2	X 10 ⁻⁵ /°C	6.5						
成型收縮率 Mold shrinkage	ASTM D955	%	0.5~0.7						
光學性質 Optical									
透光率 Total luminous transmittance	ISO 13468-1	%	85~90						
建議成型條件 Recommendation molding condition									
預乾燥條件 Pre-drying condition	120°C,5~8hr								
料筒溫度 Cylinder temperature	260~300°C (Max320°C)								
模溫 Mold temperature	80~120°C								

*UL檔案號碼:QMFZ2.E238753
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*UL file No.QMFZ2.E238753
The above typical data is supplied only technical information, and may be revised without prior notice.

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The data recorded in this paper are representative test values obtained from specific conditions.
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（本公司對相關的產業財產權糾紛概不負責）

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