



 idemitsu

FIPC Polycarbonate Resin

TARFLON™

塔夫龍™



Formosa Idemitsu Petrochemical Corporation (FIPC)

Establishment: 1st September, 2001

Product: Polycarbonate resin

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



50%

Formosa Chemicals & Fibre Corp.

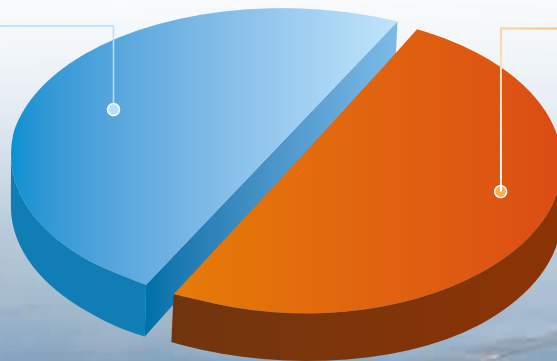
Operate the Polycarbonate plant



50%

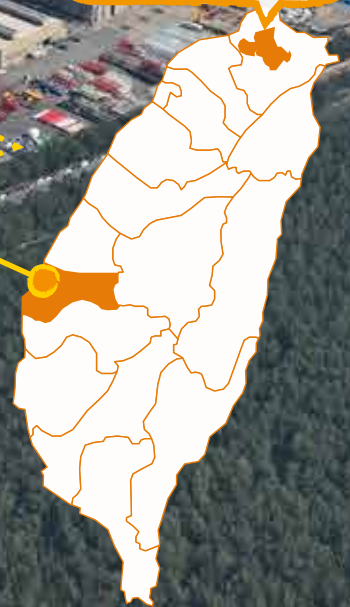
Idemitsu Kosan Co., Ltd.

Licensed PC process technology



PC plant

FIPC office at Taipei



PC plant in Formosa Industrial Complex

FIPC TARFLON™ PC Grade Type

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



FN grade

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

A grade

Basic PC with natural color for injection molding or compounding.

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 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 grade

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

HQ grade

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

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 grade

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

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.

FIPC TARFLON™ Overview of All Grades

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

I R 2 2 0 0

Type Viscosity

Feature	Type	MFR ^(*1) (g/10min)						
		65	34	26	19	11	7	5
Flake PC	FN	FN1500	-	FN1700	FN1900	FN2200	FN2500	FN2600
Basic PC	A	A1500	-	A1700	A1900	A2200	A2500	A2600
General Iced-clear ^(*2)	IR	-	-	IR1700	IR1900	IR2200	IR2500	-
Weatherability (<390nm cut) Iced-clear ^(*2)	IV	-	-	IV1701	IV1901	IV2201	IV2501	IV2601
For clean film/sheet	HQ	-	HQ1600	-	-	HQ2200	-	-
For optical media	MD	MD1500	-	-	-	-	-	-
Weatherability, high transparency	LEV-KL	-	-	LEV1700KL	-	LEV2200KL	-	-
For light conduct	LC	Please contact FIPC sales staff for details.						

(*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.

FIPC TARFLON™ PC Typical Property Table

TARFLON™			#15	#16	#17	#19	#22	#25	#26
ISO identification mark						>PC<			
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.							
Property	Method	Units							
Physical									
MFR	ISO 1133	g/10min	65	34	26	19	11	7	5
Density	ISO 1183	g/cm³	1.2						
Water absorption	ISO 62(50%RH 24hr)	%	0.23						
Mechanical									
Tensile stress at Yield	ISO 527-1,2	MPa	65	65	65	65	65	65	65
Tensile strain at break	ISO 527-1,2	%	80	95	95	95	95	90	90
Flexural strength	ISO 178	MPa	90	90	90	90	90	90	90
Flexural modulus	ISO178	GPa	2.3	2.3	2.3	2.3	2.3	2.3	2.3
Charpy impact strength	ISO179-1(Notched)	KJ/m²	15	40	40	70	80	80	90
Rockwell hardness	ISO 2049-2	R/M scale	R120/M50						
Thermal									
Heat deflection temperature	ISO 75-1,2	1.8 MPa	125	125	125	125	125	125	130
Liner thermal expansion coefficient	ISO 11359-2	X 10 ⁻⁵ /°C	6.5						
Mold shrinkage	ASTM D955	%	0.5~0.7						
Optical									
Total luminous transmittance	ISO 13468-1	%	85~90						
Recommendation molding condition									
Pre-drying condition						120°C,5~8hr			
Cylinder temperature						260~300°C (Max320°C)			
Mold temperature						80~120°C			

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

- The data recorded in this paper are representative test values obtained from specific conditions.
- We can't guarantee that the application results of materials stated in this paper are actually appropriate when used in products as stated
- While applying the materials introduced in this paper on any products, please note that there is no infringement of industrial property rights (patent right, utility model rights, creative rights, or trademarks).

(Our company shall not be responsible for any disputes caused by infringement related to industrial property rights.)

- The materials are prohibited from being in medical devices, applied in medical products or food, or added to food.
- When using the materials in food utensils or packaging purposes, customers are advised to find out the relevant laws and regulations (Food Sanitation Act, etc.) in advance and should assume the responsibility to ensure their legitimate applications.
- After using our company's as raw materials to make finished products, customers shall assume the responsibility to ensure that they meet the legitimacy of various laws and regulations.
- The flammability of materials recorded in this paper was from the evaluation results after performing a small-scale flammability experiment; therefore, it can't be entirely taken as a risk assessment of actual fire.
- Due to the need for improving the quality of materials, the contents stated in this paper may be subject to change without prior notice. Your understanding and attention are greatly appreciated.



台化出光石油化學股份有限公司
FORMOSA IDEMITSU PETROCHEMICAL CORPORATION

Address | 9F., No. 388, Sec. 6, Nanjing E. Rd., Neihu Dist.,
Taipei City, Taiwan
Tel | +886-2-27122211 Ext.6616~6618
Fax | +886-2-25473133

