

TAITA CHEMICAL COMPANY, LTD 台達化學工業股份有限公司

台達化工

PS

TAITAREX®

GENERAL PURPOSE POLYSTYRENE RESIN (GPPS)
AND HIGH IMPACT POLYSTYRENE (HIPS)

通用級聚苯乙烯及耐衝擊聚苯乙烯

PHYSICAL PROPERTIES | 物理性質

GPPS										HIPS	
PROPERTIES 性質	ASTM METHOD 測試方法	UNITS 單位	TEST CONDITIONS 試驗條件	808	818	818K	866	861	951F	666	616
Melt Flow Index 流動指數	D1238	g/10min	200°C, 5 kg load	1.9	1.9	2.3	5.0	7.0	>20	7.0	2.5
Izod Impact Strength Izod耐衝擊強度	D256	kg-cm/cm	23°C, A method, notched ¼" × ½" × ½"	1.6	1.5	1.5	1.4	1.4	1.3	8.0	9.0
			⅛" × ½" × ½"	—	—	—	—	—	—	9.0	14
Tensile Strength at Yield 抗張強度	D638	kg/cm²	23°C, ⅛" Sample	560	540	540	450	450	380	270	260
Elongation at Break 伸長率	D638	%	23°C, ⅛" Sample	2.0	2.0	2.0	2.0	2.0	2.0	35	45
Flexural Yield 抗折強度	D790	kgf/cm²	1 kg load, 3mm Thick (120°C/hr)	850	850	820	730	650	600	470	470
Flexural Modulus 抗折係數	D790	kgf/cm²	1 kg load, 3mm Thick (120°C/hr)	39 000	39 000	38 000	36 000	35 000	30 000	22 000	21 000
Vicat Softening Temperature Vicat軟化溫度	D1525	°C	1 kg load, 3mm Thick (120°C/hr)	108	107	107	100	100	85	99	102
Heat Distortion Temperature 熱變形溫度	D648	°C	Unannealed, ½ in, 18.56 kg/cm² load pressure	95	92	92	90	85	77	85	89
Residual SM monomer 殘留苯乙烯單體	—	ppm	—	150	200	200	200	200	—	600	800
Haze 曇度	—	%	2.8mm thick	0.35	0.50	0.35	0.40	0.40	—	—	—
Rockwell Hardness Rockwell硬度	D785	R-Scale	23°C	124	124	124	123	123	120	96	99
Specific Gravity 比重	D792	—	—	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05

MOLDING CONDITIONS | 成型條件

GPPS								HIPS	
PROPERTIES 性質	UNITS 單位	808	818	818K	866	861	951F	666	616
Cylinder Temperature 料筒溫度	°C	160 – 300	160 – 300	160 – 300	160 – 300	160 – 300	160 – 280	160 – 280	160 – 280
Injection Pressure 成型壓力	kgf/cm²	500 – 1400	500 – 1400	500 – 1400	500 – 1400	500 – 1400	500 – 1400	500 – 1400	500 – 1400
Mold Temperature 模具溫度	°C	35 – 65	35 – 65	35 – 65	35 – 65	35 – 65	35 – 65	35 – 65	35 – 65

INTERNATIONAL COMPLIANCE | 國際認證



Flammability Rate 94HB
File No. E50263



CFR Title 21, Pt 177.1640



ISO 9001, ISO 14001,
OHSAS 18001



SONY Green Partnership
Certification



RoHS directive
SVHC free
REACH

**The data listed represents average values that are believed to be reliable. They are given for information purposes only, with no guarantee of their accuracy.
The product is sold without warranty, express or implied, upon the condition that purchasers shall make their own tests to determine the suitability of the product for their particular purposes.
**以上數據為實驗室測試結果，僅供參考用。

TAITAREX® GPPS | 通用型聚苯乙烯

General purpose polystyrene is an amorphous polymer made from the styrene monomer. This thermoplastic polymer is clear, transparent, and rigid. Taita Chemical's GPPS has achieved an astoundingly low residual styrene monomer content, which produces a highly transparent, environmentally friendly, and food grade approved product. Introducing US Nova Chemicals technology in 1999, Taita constantly strives to improve production processes and develop new products.

CHARACTERISTICS

1. Good transparency
2. Low residual monomer
3. Mold dimension stability
4. Good heat resistance
5. Easy processing

APPLICATIONS

Diffuser of back-light module for LCD monitors, CD cases, foam sheets, OPS films, home appliances, cosmetic cases, utensils, lamps, toys, stationery, souvenirs

Taitarex®通用型聚苯乙烯是由苯乙烯單體製成的非結晶熱可塑性聚合物，具透明、剛性、高光澤等特性。Taitarex®通用型聚苯乙烯因苯乙烯單體殘留量超低，透明度極佳，屬環保綠色材料同時也符合食品級認證的產品。Taitarex®通用型聚苯乙烯是台達化工於西元1999年引進美國NOVA Chemicals最先進的設備加上自行不斷的製程改善突破所製造的產品。

特性

1. 透明度佳
2. 低殘留單體量
3. 表面尺寸安定性佳
4. 耐熱性佳
5. 良好加工性

應用

背光模組之擴散板、CD盒、發泡板材、OPS熱成型片材、家庭五金、化妝品容器、餐具、燈飾、玩具、文具、禮品等

LIFESTYLE | 生活

 **EXTRUSION** 押出成型

 **INJECTION** 射出成型

E/I	PRODUCT GRADE 產品等級	IZOD 衝擊強度	MI 流動指數	APPLICATIONS 應用
	GPPS866N/B	1.4	5.0	CD cases, cosmetic cases, spray bottles, Christmas lights, toys, home appliances CD盒、化妝品容器、噴瓶、燈飾、玩具、家電製品
	GPPS861N/B	1.4	7.0	Cosmetic cases, spray bottles, Christmas lights, toys, home appliances 化妝品容器、噴瓶、燈飾、玩具、家電製品
	HIPS666	6.0	7.0	Toys, coffee makers, home appliances 玩具、咖啡機、家用電器





DINING | 飲食

 **EXTRUSION** 押出成型

 **INJECTION** 射出成型

E/I	PRODUCT GRADE 產品等級	IZOD 衝擊強度	MI 流動指數	APPLICATIONS 應用
	GPPS861N/B	1.4	7.0	Transparent cups, plates, utensils, fruit platters 透明杯、盤子、餐具、水果盤
	GPPS818	1.5	1.9	Bi-Oriented Polystyrene (OPS) for take-out containers OPS押出製品 (例：食品包裝盒)
	GPPS818K	1.5	2.3	Polystyrene paper (PSP) for foam plates, bowls and cups PSP押板製品 (例：盤、碗、杯)
	HIPS616	9.0	2.5	Extruded sheets 押板製品



LIFE IS BETTER... WITH TAITA

TAITAREX® HIPS | 耐衝擊型聚苯乙烯

High Impact Polystyrene is polystyrene copolymerized with a small amount of polybutadiene to improve the impact resistance and brittleness. As the first to produce polystyrene in Taiwan, Taita Chemical has the technical expertise and longstanding history to satisfy customers' particular needs worldwide.

CHARACTERISTICS

1. Mold dimensional stability
2. High impact strength
3. Good heat resistance
4. Easy processing
5. Base color stability

APPLICATIONS

Home appliances, stationery, utensils, computer/laptop housing, toys, calculators, peripheral computer parts, handling trays, medical supplies

Taitarex®耐衝擊型聚苯乙烯是為提高通用型聚苯乙烯樹脂的耐衝擊強度及改善易脆性，添加少量聚丁烯共聚合而成的塑膠產品。台達化工是第一家台灣生產聚苯乙烯樹脂的工廠，加上長年的生產經驗及技術，可以滿足客戶在各種不同市場的需求。

特性

1. 具尺寸穩定性佳
2. 高衝擊強度
3. 耐熱性佳
4. 良好加工性
5. 底色穩定

應用

家用電器、文具、餐具、電腦/筆記型電腦外殼、玩具、計算機、電腦周邊零件、手用托盤、醫療用品

WORK | 工作



EXTRUSION 押出成型



INJECTION 射出成型

E/I	PRODUCT GRADE 產品等級	IZOD 衝擊強度	MI 流動指數	APPLICATIONS 應用
	GPPS866N/B	1.4	5.0	Stationery, rulers, thumbtacks, petri-dishes, lighting 文具、尺、圖釘、培養皿、燈飾
	GPPS861N/B	1.4	7.0	Stationery, rulers, thumbtacks, petri dishes, alarm clocks 文具、尺、圖釘、培養皿、鬧鐘
	GPPS808	1.6	1.9	Diffuser of LCD monitor's back light module 背光模組之擴散板
	HIPS666	6.0	7.0	Computer housing, peripheral computer parts 電腦外殼、電腦週邊製品

OTHER | 其他

E/I	PRODUCT GRADE 產品等級	IZOD 衝擊強度	MI 流動指數	APPLICATIONS 應用
	GPPS818K	1.5	2.3	Extruded polystyrene (XPS) for construction insulation boards XPS押出成型發泡聚苯乙烯 (例：製造建築保溫板)
—	GPPS951F	1.5	>20	TRP Compounding, masterbatch TRP混鍊用、色母
	HIPS616	9.0	2.5	Sheets, cable reels, buoy 押板製品、線軸、浮球

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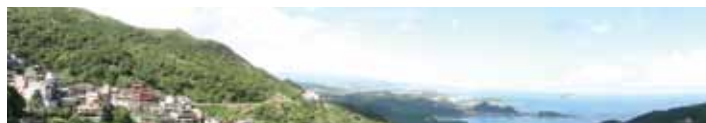
ABOUT US | 關於我們



As one of the top producers of styrenics in Taiwan, Taita Chemical Company, Limited holds a global reputation as a pioneer in the field. Established in 1960, Taita Chemical was the first to produce both Expandable Polystyrene and General Purpose Polystyrene in Taiwan. Taita Chemical Company is a part of a larger petrochemical group called USI Group, extending its logistical efficiency and resources. With over 50 years of experience, Taita Chemical boasts having not only one of the lowest styrene residual monomer ratios in the world (GPPS), but also a versatile product line and excellent customer service. Taita Chemical's product line now includes Acrylonitrile-Butadiene-Styrene (ABS), General Purpose Polystyrene (GPPS), High Impact Polystyrene (HIPS), and Expandable Polystyrene (EPS), as well as Glass Wool and Cubic Printing. Furthermore, Taita's environmentally conscientious plant has been granted ISO 9001, ISO 14001, OHSAS 18001, and Sony Green Partner certification.

台達化工成立於西元1960年，是台灣第一家生產發泡聚苯乙烯、聚苯乙烯樹脂的製造商，在業界是領先的品牌，在全球亦擁有石化先驅的美譽。台達化工是台灣大型石化業—「台聚集團 (USI)」的成員之一，以集團現有的資源加上超過50年的生產經驗，除提供市場多樣化的產品外，並以最佳的服務品質滿足客戶的需求。台達化工除生產ABS/GPS/IPS/EPS外並跨足玻璃棉及曲面印刷加工等產業。台達化工通過的認證有ISO 9001, ISO 14001, OHSAS 18001及Sony Green Partnership等。

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