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汽車部件

汽車電子零件使用材料

For Electronic Components



台塑企業
FORMOSA PLASTICS GROUP



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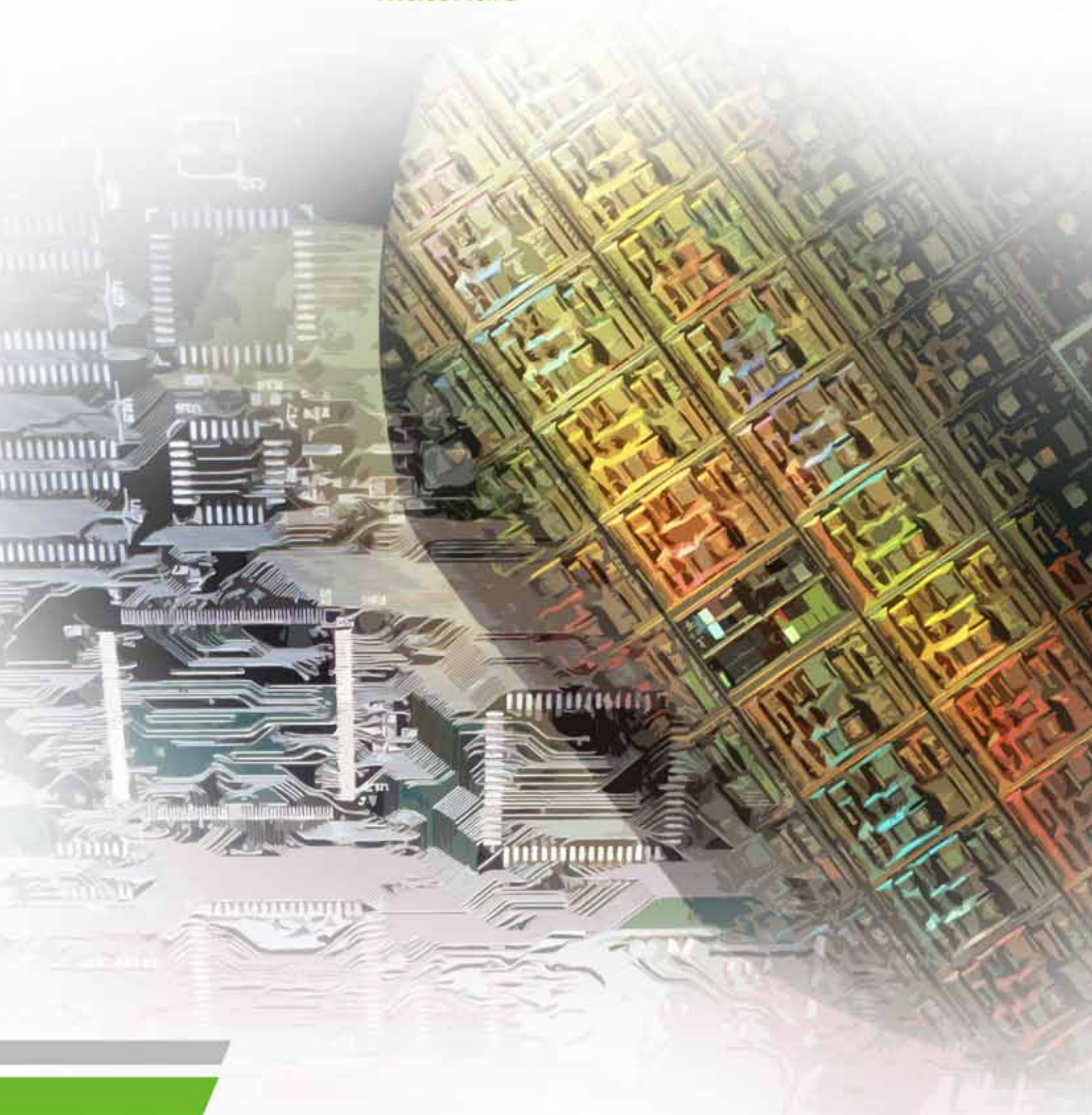
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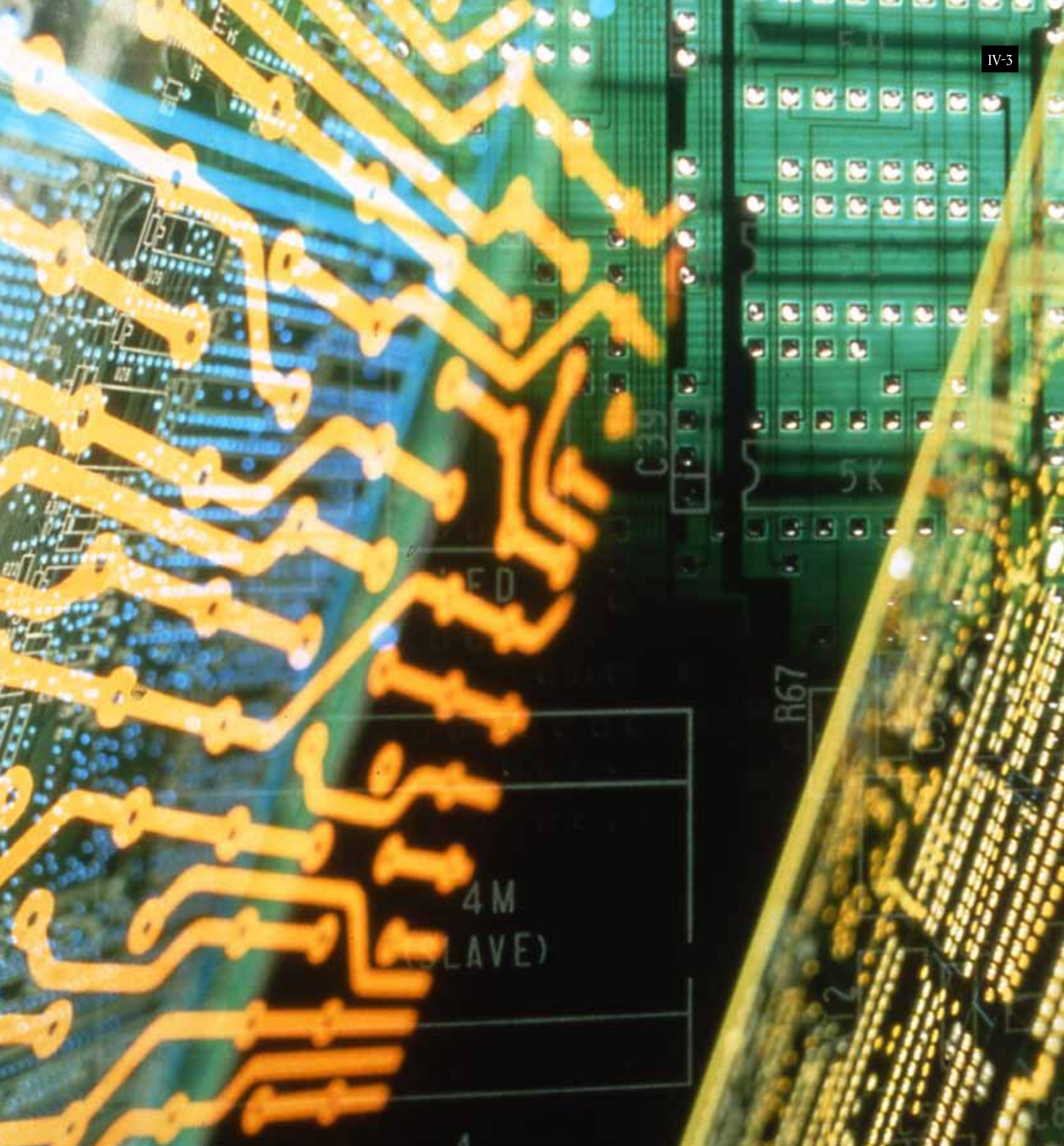
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台塑企業**汽車部件** 使用材料

車用電路板原材料、車用主機板原材料
Automotive Printed Circuit Board
Materials、Automotive Main Board
Materials

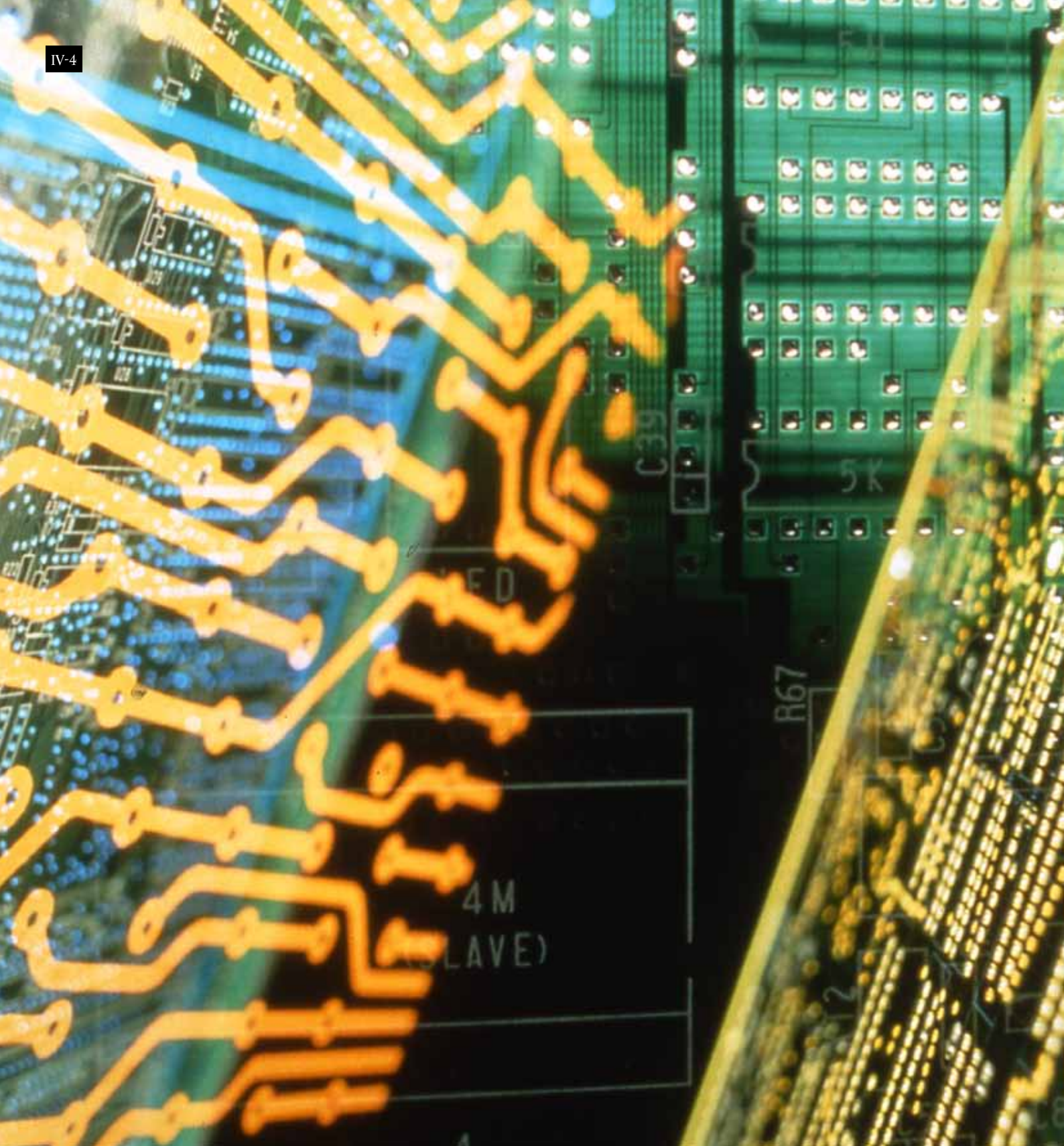




耐溫、抗震及成本優勢

提供車用電子產品從原材料至印刷電路板等完整產品線，成本競爭優勢與嚴格的品質控管，產品更是具備耐候性、耐久性及耐震等特性，是您最佳的選擇。



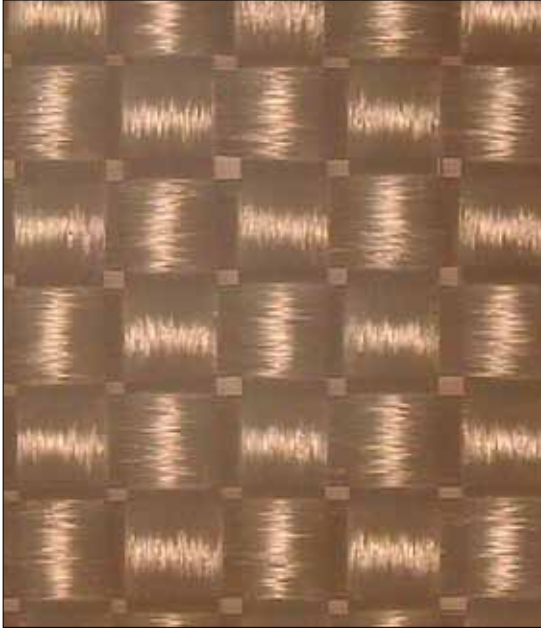


TEMPERATURE AND SHOCK RESISTANCE, LOW COST

We offer a full range of electronic car products from raw materials to PCBs with the advantage of being cost competitive and having stringent QC, weather resistance, durability, shock resistance, and other benefits. They are your best option.



車用電路板原材料 - 玻纖布



玻纖布產品（南亞公司）

產品特性及優點：

1. 以特殊表面處理技術達成產品優良的含浸性及抗 CAF 性能。
2. 以高效能開纖工法達成優良的鑽孔性及尺寸安定性。
3. 產品厚度 12~240 μm ，基重 11~255 g/m^2 ，最大幅寬 1,320mm。

用途：車用電路板。

產品應用：

引擎室 ECU、控制元件、儀表板、剎車部品、衛星導航、影音系統及其他電子配備。

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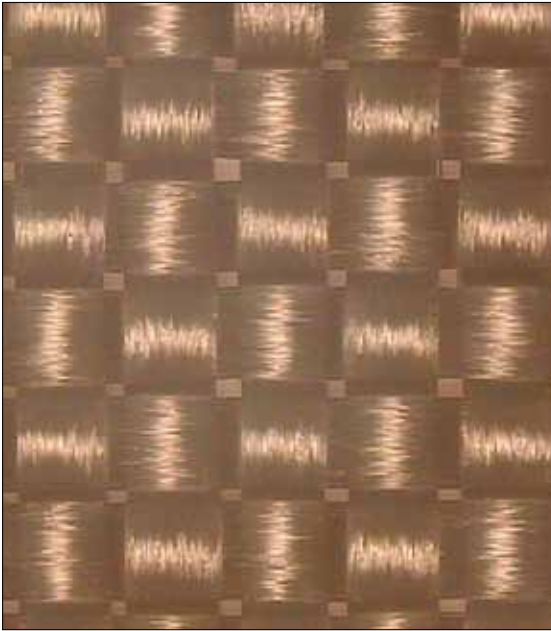
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Automotive Printed Circuit Board Materials: Glass Fabrics



Glass Fabrics (NPC)

Product Features and Benefits:

1. Special surface treatment technology is adapted to achieve excellent product impregnation and anti-CAF performance.
2. An efficient fiber splitting method achieves excellent hole drilling ability and dimensional stability.
3. Product specifications: Thickness of 12 ~ 240 μm , basic weight of 11 ~ 255 g/m^2 , maximum width of 1,320 mm.

Applications: Automotive PCB.

Product Applications:

Engine compartment ECU, Control components, Dashboards, Brake parts, Satellite navigation, Audiovisual system, and other electrical accessories.

Contact Information:

Nan Ya Plastics Corporation Electronic Materials Div. Sales 3rd Dept.

TEL: 886-2-27122211 EXT. 5831 FAX: 886-2-27182258

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車用電路板原材料 - 環氧樹脂



電子級環氧樹脂產品（南亞公司）

產品特性及優點：

適用銅箔基板 (CCL)，包含：

- 溴化環氧樹脂：區分 Tg140°C，150°C，170°C 等級，穩定反應膠化時間，寬廣壓合工作區間 (high working window)。
- 多官能基環氧樹脂與酚醛樹脂硬化劑：符合 PCB 無鉛製程耐熱要求，符合 IPC-4101 無鉛製程標準，低吸水性，經 PCT 2hr 浸焊錫耐熱性 > 10 分鐘不爆板。
- 環保型無鹵磷系環氧樹脂 NPEP-200LA70/NPEP-210A70，符合無鹵素 RoHS 環境危害物質標準，搭配二氧化矽填料，阻燃性達 UL-94V0 等級，優良耐熱性。

溴化環氧樹脂

產品型號		NPEB-454A80	NPEB-485A80	NPEB-487A80
項目	單位	平均值		
環氧當量 (EEW)	g/eq	425 ~ 455	385 ~ 405	355 ~ 375
平均重量分子量	Mw	-	2,600-3,200	2,600-2,850
Tg	°C	140	150	170

多官能環氧樹脂

產品型號		NPPN-438A70	NPPN-433A70	NPPN-431A70
項目	單位	平均值		
環氧當量 (EEW)	g/eq	185-210	232-247	200-240
平均重量分子量	Mw	2,300-2,700	1,120-1,180	1,208-1,400

環保型無鹵素磷系環氧樹脂

產品型號		NPEP-200LA70	NPEP-210A70	NPEP-204A70
項目	單位	平均值		
環氧當量 (EEW)	g/eq	330-270	310 ~ 330	430-470
平均重量分子量	Mw	4,300-4,900	1,300-1,600	4,200-5,400
磷含量	%	2.5	3.3	4

聯繫方式：南亞塑膠股份有限公司 電子材料事業部 產銷二組

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Automotive Printed Circuit Board Materials: Epoxy Resins



Electrical-grade Epoxy Resins (NPC)

Product Features and Benefits:

Applicable to copper clad laminates (CCL), the resins include:

- A. Brominated epoxy resin: Classified into Tg140°C, 150°C, and 170°C grades. Advantages include a stable gel reaction time and high working window.
- B. Multifunctional epoxy resin and phenolic resin hardener: Comply with the heat requirements of the lead-free PCB process and IPC-4101 standard of the lead-free process and has a low water absorption rate. No board explosion will occur after undergoing the PCT 2-hr heat resistance test of solder dipping > 10 minutes.
- C. Environmentally friendly halogen-free phosphorus-based epoxy resin NPEP-200LA70 / NPEP-210A70 complies with halogen-free RoHS standards. When incorporated with silica filler, its flame retardant capacity reaches up to UL-94V0 grade with excellent heat resistance properties.

Brominated Epoxy Resins:

Grade		NPEB-454A80	NPEB-485A80	NPEB-487A80
Properties	Unit	Typical Value		
Epoxide Equivalent Weight (EEW)	g/eq	425~455	385~405	355~375
Average Molecular Weights	Mw	-	2,600~3,200	2,600~2,850
Tg	°C	140	150	170

Multifunctional Epoxy Resins:

Grade		NPPN-438A70	NPPN-433A70	NPPN-431A70
Properties	Unit	Typical Value		
Epoxide Equivalent Weight (EEW)	g/eq	185~210	232~247	200~240
Average Molecular Weights	Mw	2,300~2,700	1,120~1,180	1,208~1,400

Environmentally Friendly Halogen-free Phosphorus-based Epoxy Resins:

Grade		NPEP-200LA70	NPEP-210A70	NPEP-204A70
Properties	Unit	Typical Value		
Epoxide Equivalent Weight (EEW)	g/eq	330~270	310~330	430~470
Average Molecular Weights	Mw	4,300~4,900	1,300~1,600	4,200~5,400
Phosphorus Content	%	2.5	3.3	4

Contact Information:

Nan Ya Plastics Corporation Electronic Materials Div. Produce & marketing 2nd Dept.

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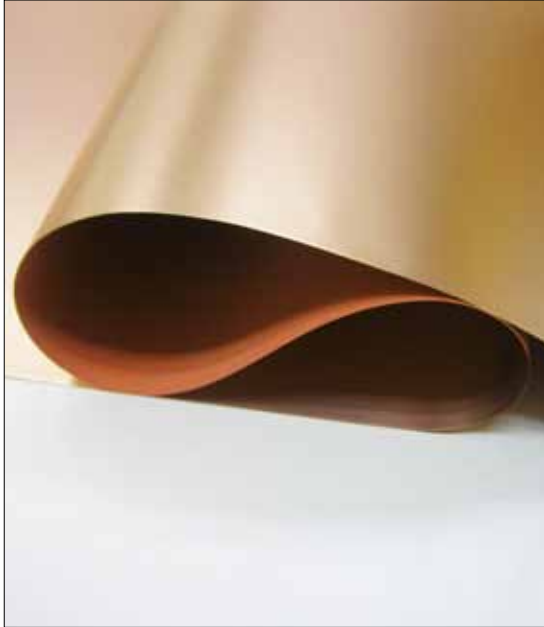
Nan Ya Electronic Materials (Kunshan) Co., Ltd. Epoxy Sales Dept.

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車用電路板原材料 - 銅箔



銅箔產品（南亞公司）

產品特性及優點：

1. 均一的厚度、高剝離強度、優良的耐化學藥品特性。
2. 良好的高溫伸長率及焊錫性，適用於 FR-4 基材。

用途：

1. 安全系統：引擎 ECU、煞車系統等印刷電路板 (PCB) 使用。
2. 行車系統：行車電腦、儀表控制系統等印刷電路板 (PCB) 使用。
3. 其他系統：影音系統、衛星導航系統、倒車影像等印刷電路板 (PCB) 使用。

加工方式：

- (1) 溶銅 (2) 生箔 (3) 表面處理 (4) 裁檢 (5) 包裝出貨。

產品應用：

引擎室 ECU、控制元件、儀表板、剎車部品、衛星導航、影音系統及其他控制元件。

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聯繫方式：南亞電子材料（昆山）有限公司 銅箔營業處

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南亞電子材料（惠州）有限公司 銅箔營業處

公司電話：86-752-6926797 公司傳真：86-752-6926262

公司地址：廣東省惠州市博羅縣石灣鎮永石大道

E-mail：sammylin777@npc.com.tw

Automotive Printed Circuit Board Materials: Copper Foil



Copper Foil (NPC)

Product Features and Benefits:

1. Features uniform thickness, high peeling strength, and excellent chemical resistance.
2. Good high-temperature elongation rate and soldering performance, making it suitable for use in FR-4 substrates.

Applications:

1. Safety system: Used in PCBs for engine ECU, brake systems, etc.
2. Driving system: Used in PCBs for trip computers, instrumentation control systems, etc.
3. Other systems: Used in PCBs for audiovisual systems, satellite navigation systems, backup cameras, etc.

Processing Methods:

- (1) Copper melting
- (2) Foil processing
- (3) Surface treatment
- (4) Cutting and inspection
- (5) Packaging and shipping.

Product Applications:

Engine compartment ECU, Control components, Dashboards, Brake parts, Satellite navigation, Audiovisual system, and other control components.

Contact Information:

Nan Ya Plastics Corporation Electronic Materials Div. Sales 5th Dept.

TEL: 886-2-2712221 EXT. 5828 FAX: 886-2-7182258

ADD.: 6F., No. 201, Tung Hwa N. Road, Songshan Dist., Taipei City 10508, Taiwan (R.O.C.)

E-mail: joseph1@npc.com.tw / miyatien@npc.com.tw

Nan Ya Electronic Materials (Kunshan) Co., Ltd. Copper Foil Sales Dept.

TEL: 86-512-57357080 EXT. 3213 FAX: 86-512-57369006

ADD.: No.201, Changjiand S. Road, Jiangsu, China

E-mai: able0428@nanyaccl.com.

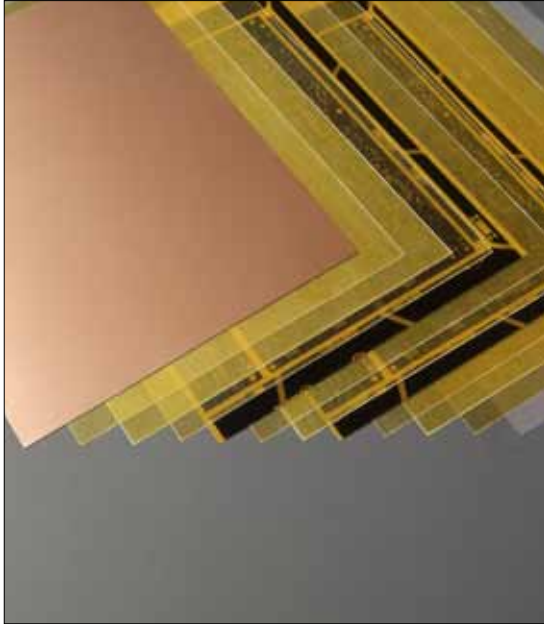
Nan Ya Electronic Materials (Huizhou) Co., Ltd. Copper Foil Sales Dept.

TEL: 86-752-6926797 FAX: 86-752-6926262

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E-mail:sammylin777@npc.com.tw

車用電路板原材料 - 銅箔基板



銅箔基板產品（南亞公司）

產品特性及優點：

- (1) 低熱膨脹係數 (CTE)、高冷熱衝擊 (TCT) 承受度。
- (2) 優良抗銅離子遷移 (CAF) 特性，高信賴性。
- (3) 厚銅基板 (up to 400um)、耐高電壓產品。

用途：

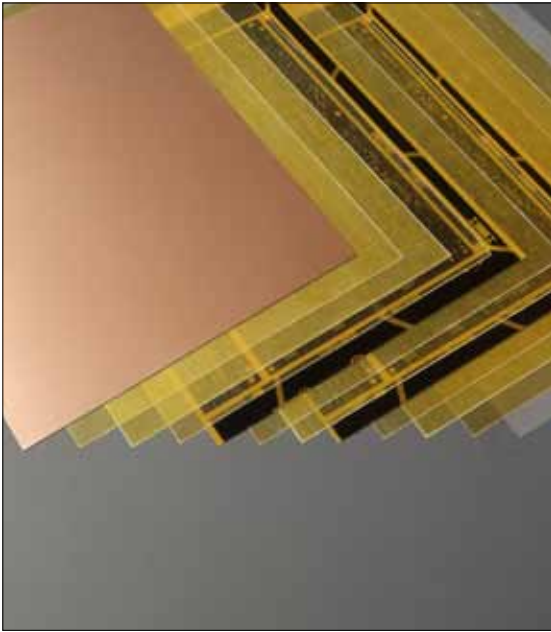
全系列汽車部品印刷電路板用銅箔基板 (CCL) 與基材 (PREPREG)。

產品應用：

引擎室 ECU 控制元件、變速箱、安全氣囊、剎車部品、儀表板、衛星導航、影音系統、車體控制開關、車燈及其他。



Automotive Printed Circuit Board Materials: Copper Clad Laminate



Copper Clad Laminate (NPC)

Product Features and Benefits:

- (1) Low coefficient of thermal expansion (CTE) and high cold-hot thermal shock (TCT) tolerances.
- (2) Excellent resistance to copper ion migration (CAF) and high reliability.
- (3) Thick copper substrate (up to 400 um) and resistance to high voltage.

Applications:

Full range of PCBs for car parts in copper clad laminates (CCL) and substrates in pre-impregnated (PREPREG) composite fibers.

Product Applications:

Engine compartment ECU, gearboxes, safety air sacs, brake parts, dashboards, satellite navigation, audiovisual system, car body control switches, car lights, etc.



產品規格表：

產品型號	NP-140	NP-155F	NP-155FBH	NP-175F NP-175FBH	NPG-150N	NPG-180BH
項目	Dicy FR4	PN Mid TG	PN Mid TG Low CTE	PN Hi TG	H/F Mid TG	H/F Hi TG Ultra low CTE
Tg (°C , by DSC)	140	150	150	170	150	190
Td (°C)	310	350	350	352	360	370
Fillers	No	Yes	Yes	Yes	Yes	Yes
Peeling Strength loz (1b/ in)	11	9	9	8	9	7
Flammability (UL 94)	V-0	V-0	V-0	V-0	V-0	V-0
Z- Axis Alpha 1 Max (ppm/ °C)	50-70	40-50	30-40	30-40	30-40	25-40
Z- Axis Alpha 2 Max (ppm/ °C)	250-350	230-250	200-230	210-230	200-230	125-145
Z- Axis % (50-260°C)	4.0	3.0	2.5	2.5	2.8	1.8
T- 260 (min)	10'	> 60'	> 60'	> 60'	> 60'	> 60'
T- 288 (min)	1'	> 20'	> 20'	> 30'	> 20'	> 30'
Anti CAF	Yes	Yes	Yes	Yes	Yes	Yes

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Products Specifications:

Grade	NP-140	NP-155F	NP-155FBH	NP-175F NP-175FBH	NPG-150N	NPG-180BH
Properties	Dicy FR4	PN Mid TG	PN Mid TG Low CTE	PN Hi TG	H/F Mid TG	H/F Hi TG Ultra low CTE
Tg (°C , by DSC)	140	150	150	170	150	190
Td (°C)	310	350	350	352	360	370
Fillers	No	Yes	Yes	Yes	Yes	Yes
Peeling Strength loz (1b/ in)	11	9	9	8	9	7
Flammability (UL 94)	V-0	V-0	V-0	V-0	V-0	V-0
Z- Axis Alpha 1 Max (ppm/°C)	50-70	40-50	30-40	30-40	30-40	25-40
Z- Axis Alpha 2 Max (ppm/ °C)	250-350	230-250	200-230	210-230	200-230	125-145
Z- Axis % (50~260°C)	4.0	3.0	2.5	2.5	2.8	1.8
T- 260 (min)	10'	> 60'	> 60'	> 60'	> 60'	> 60'
T- 288 (min)	1'	> 20'	> 20'	> 30'	> 20'	> 30'
Anti CAF	Yes	Yes	Yes	Yes	Yes	Yes

Contact Information:**Nan Ya Plastics Corporation Electronic Materials Div. 1st Sales Dept.**

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Nan Ya Electronic Materials (Huizhou) Co., Ltd. Copper Clad Laminate Sales Dept.

TEL: 86-752-6926784 EXT.6788 FAX: 86-752-6926777

ADD.: Yongshi Boulevard, Shiwan Town, Boluo County, Guangdong, China 516127

E-mail: syy641205@npc.com.tw

車用電路板原材料 -

印刷電路板 (含 IC 載板及系統級封裝板 SiP)



用途：

先進駕駛輔助系統 (ADAS)、自動剎車系統、多媒體影音系統、動力傳輸系統、引擎室 ECU、變速箱、控制元件、儀錶板、衛星導航、無線傳輸及其他。

車用印刷電路板產品 (南亞電路板公司)

含 IC 載板及系統級封裝板 SiP

汽車用電子產品特色及優點：

1. 耐候性：須適應溫度差異大及高溫高濕的環境，產品須能將冷縮熱脹因子有效控制並正常運作。
2. 耐久性：汽車屬耐久消耗材，最低保固三年，長者如國際領導車廠保固可達二十多年，相關零組件供應商需持續供應維修用之備用零組件。
3. 耐震度及可靠：產品須要承受震動、抗老化，同時又要能維持接點準確的高可靠度。

車用電路板產品特色及優點：

車用電路板在耐溫、耐腐蝕、抗電磁波與抗震的要求更嚴於 3C 產品規格，供應商能提供長期穩健的品質保證，遠比能提供價格便宜的產品更重要。例如，車用組裝廠對於電路板的驗證期就需約三年的時間，而其間也會要求許多不同測試條件的產品試做。對於最後的產品品質則要求達到幾近零缺陷的高良率目標 (0PPM)。

通過 ISO 9001、ISO 14001、TS 16949 等認證。

南亞車用電路板 (含 IC 載板及系統級封裝板 SiP)

產品優勢：

1. 符合 ISO 9001、ISO 14001、TS 16949 規範。
2. 具耐高壓、高溫特性，高信賴性。
3. 提供長期 (至少五年) 的供貨計劃。

加工方式：

(1) 雙面板 (2) 多層板 (3) 高密度連結板...等。

高密度連結板與傳統印刷電路板物性比較：

項目	傳統印刷電路板	高密度連結板
電氣導通	√	√
高密度線路設計		√
減少訊號干擾		√
加速傳輸速率		√

聯繫方式：南亞電路板股份有限公司 營業處

公司電話：886-3-3223751 轉 1053 公司傳真：886-3-322-3802-3

公司地址：33859 桃園市蘆竹區南崁路一段 338 號

E-mail：kenny@nanyapcb.com.tw

南亞電路板 (昆山) 有限公司 營業處

公司電話：86-512-5735-7080 轉 5900 公司傳真：86-512-57369002

公司地址：江蘇省昆山經濟技術開發區長江南路 201 號

E-mail：eric_wu@nanyapcb.com.tw

Automotive Printed Circuit Board Materials:

Printed Circuit Board [Including IC Substrate and System-in-Package (SiP) product]



Applications:

Advanced Driver Assistance Systems (ADAS), Electric Breaking System, Information and Connectivity, Engine and Powertrain Systems, Transmission, Instrumentation and Driver HMI, Dashboard, Navigation, Wireless transmission and others.

Contact Information:

Nan Ya Printed Circuit Board Corporation. Sales Dept.

TEL: 886-3-3223751 EXT.1053 FAX: 886-3-3223802-3

ADD.: No. 338, Nan Ken Road, Luchu Dist., Taoyuan City 33859, Taiwan (R.O.C.)

E-mail: kenny@nanyapcb.com.tw

Nan Ya Printed Circuit Board (Kunshan)Co.,Ltd. Sales Dept.

TEL: 86-512-5735-7080 EXT. 5900 FAX: 86-512-5736-9002

ADD.: No. 201 Changjiang Road, Kunshan Economic & Technical Development Zone, Jiangsu, China

E-mail: eric_wu@nanyapcb.com.tw

Automotive Printed Circuit Board (NYPCB):

(Including IC Substrate and System-in-Package (SiP) product)

Product Features and Benefits:

1. Weather resistance: Products can adapt to big temperature variations, high temperatures, and high humidity environments, and can effectively control thermal expansion or contraction factors to ensure normal operation.
2. Durability: As vehicles are considered durable consumable parts with a minimum warranty of three years, and sometimes more than 20 years for world-renowned leading car makers, the suppliers of relevant parts/components must be able to continuously supply spare parts/components for maintenance.
3. Anti-vibration reliability: The products must be able to bear vibration and anti-aging

Automotive PCB Product Features:

As Automotive PCBs have to be temperature resistant, anti-corrosive, anti-electromagnetic, and anti-vibratory, their quality control is even stricter than that of 3C products. Therefore, suppliers ability to provide long-term stable quality is much more important than offering cheaper products.

For example, car assembly plants require PCBs to have about three years of qualification, during which the plants may also request to perform different reliability tests on the products, in order to achieve the goal of near-zero defect rate (0PPM) on the final products.

Conform to ISO 9001, ISO 14001, and TS 16949 Certifications.

Advantages of Nan Ya's Automotive PCBs (including IC Substrate and System-in-Package (SiP) product):

1. Comply with ISO 9001, ISO 14001, and TS 16949 standards.
2. High pressure resistance, high-temperature characteristics, and high reliability.
3. Long-term provision of parts (at least five years).

Processing Methods:

- (1) Double-sided PCBs
- (2) Multilayer PCBs,
- (3) High density interconnection (HDI) boards, etc.

Comparison of HDI Boards with Traditional PCBs:

Item	Traditional PCBs	HDI Board
Electrical Conduction	√	√
High-Density Circuit Design		√
Signal Interference Reduction		√
Accelerated Transmission Rate		√

車用主機板原材料 - 記憶體 (DRAM)



記憶體 (DRAM) 產品 (南亞科技公司)

產品特性及優點：

提供符合 JEDEC 規範的記憶體含括車規、工規及商規。

車規等級記憶體通過 AEC Q-100 認證 & PPAP。

主要產品：

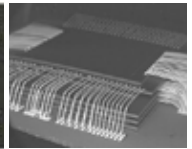
1. 良裸晶粒：於系統設計上具有低成本及高生產彈性優勢。
2. 消費型產品：多樣化的產品規格符合各種消費型應用的記憶體需求。
3. 低功率產品：低功率消耗 / 高數據傳輸頻寬 / 產品體積小。



消費型產品



低功率產品



良裸晶粒

加工方式：

DRAM 製程分為前段的晶圓製作及後段的封測。

南亞科 DRAM 產品

- 供應低容量至高容量產品提供完整的產品線。
- 針對車用產品提供長期 (至少五年) 的供貨計劃。
- 憑藉集團整合達到成本競爭優勢 (矽晶圓到封測一條鞭)。
- 彈性的訂單量接受度及專業的售後服務。
(FAE 團隊技術支持)

聯繫方式：南亞科技股份有限公司

公司電話：886-2-29045858 公司傳真：886-2-29080758

公司地址：24308 新北市泰山區南林路 98 號

E-mail：lancitseng@ntc.com.tw

Automotive Main Board Materials: DRAM



DRAM (Nanya Technology)

Product features and advantages:

Support full line JEDEC standard DRAM including Automotive/Industrial/Commercial grade.

Automotive parts certified with AEC-Q100 and PPAP.

1. Good quality bare dies: Advantages of low-cost production and high production flexibility in system design.
2. Consumer products: Diversifying product specs to meet the DRAM requirement for different consumer applications.
3. Low power products: Advantages of low power consumption, high data transmission bandwidth, and compact sizes.



Consumer products Low power products Good quality bare dies

Manufacturing Process of Nanya DRAM Products:

The DRAM manufacturing process can be divided into four stages: design, fabrication, assembly and testing.

NTC DRAM:

- Full line products cover from low to high density to satisfy different spec requirements.
- Longevity support programs (at least five years).
- Gain cost competitiveness through vertical process integration with Formosa Group.
- Flexibility with the minimum order.
- Strong after service by professional FAE team.

Contact Information:

Nanya Technology Corporation .

TEL: 886-2-29045858 FAX: 886-2-29080758

ADD.: No. 98, Nanlin Rd., Taishan Dist, New Taipei City 24308, Taiwan (R.O.C.)

E-mail: lancitseng@ntc.com.tw

台塑企業**汽車部件** 使用材料

**影音導航顯示系統、車用液晶顯示器、
行車資訊及空調系統顯示器**

**Audiovisual & Navigation System,
Auto Liquid Crystal Display,
Driving Information &
Air Conditioning System Display**





量身客製，高信賴性，符合車規要求

以專業技術，因應顧客需求量身打造，具備超廣溫及超廣角特性，並與車內儀表板完美搭配之車用顯示系統。





CUSTOM MADE, HIGH RELIABILITY FOR AUTOMOTIVE APPLICATION

According to customers requirements, we provide display products and integrated touch solution with ultra-wide temperature range and ultra-wide viewing angles which can fulfill the requirement of automotive use.



影音、導航顯示系統原材料 - 觸控模組



觸控模組 (TP) 產品 (南亞公司)

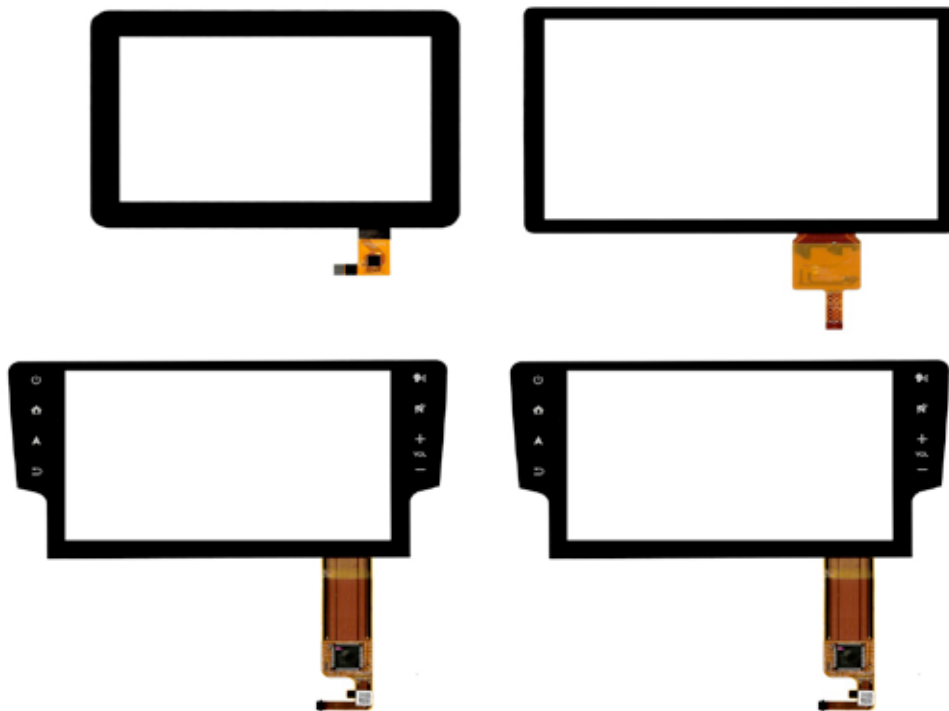
產品特性及優點：

1. 具高信賴性。
2. 廣溫操作：-30°C ~85°C。
3. 表面耐刮。
4. 多點觸控。
5. 低反射。
6. 抗指紋。

加工方式：配合汽車儀表板機構組裝。

產品應用：

適用於影音、導航顯示系統。



聯繫方式：南亞塑膠公司電子材料事業部 營業四處

公司電話：886-3-3223751 轉 2713、2716 公司傳真：886-3-3125803

公司地址：33859 桃園縣蘆竹鄉南崁路一段 338 號

E-mail：fermi_lu@npc.com.tw

Raw materials for **Audiovisual & Navigation System;** **Touch Display Modules**



Touch Display Modules (TP) (NPC)

Product Features and Benefits:

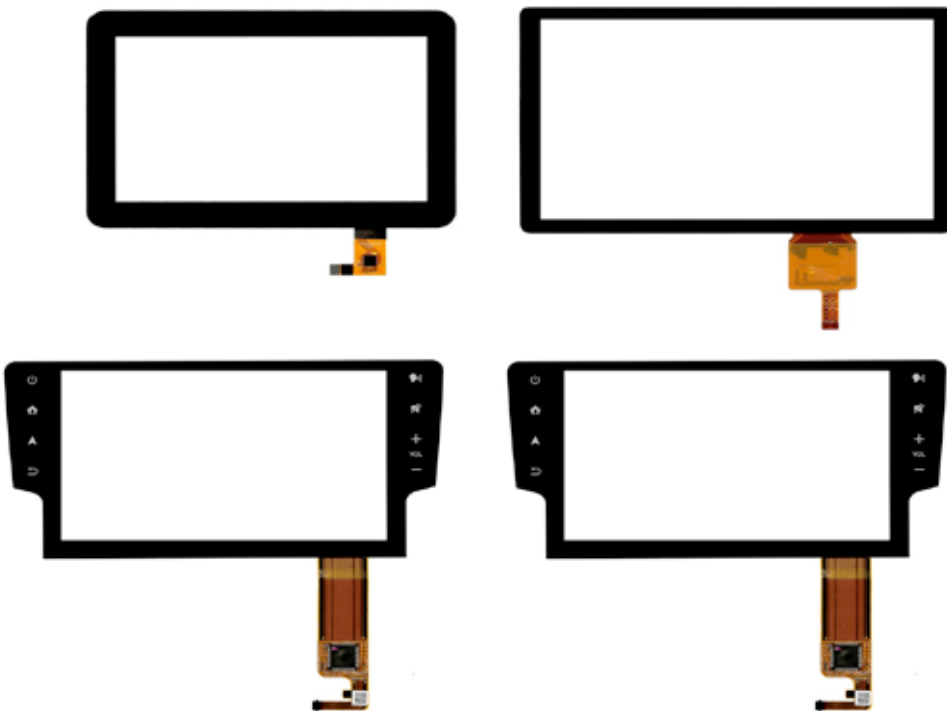
1. High reliability.
2. Wide operating temperature range: $-30^{\circ}\text{C} \sim 85^{\circ}\text{C}$.
3. Scratch resistant surface.
4. Multi-touch design.
5. Low reflection.
6. Anti-fingerprint.

Processing Methods:

Coordinated and assembled in accordance to car dashboard mechanisms.

Applications:

Designed for audiovisual and navigation display systems.



Contact Information:

Nan Ya Plastics Corporation Electronic Materials Div. 4th Sales Dept.

TEL: 886-3-3223751 FAX: 886-3-3125803

ADD.: No. 338, SECI, Nan Ken Road, Luchu Dist., Taoyuan City 33859, Taiwan (R.O.C.)

E-mail: s-h-chan@npc.com.tw

車用液晶顯示器



車用超扭轉向列型液晶顯示器 (ASTN LCD) 產品 (南亞公司)

產品特性及優點：

1. 超廣溫應用：操作溫度 (-40°C ~85 °C)、儲存溫度 (-40°C ~90°C)。
2. 高溫 80 °C 對比度佳且無視向死角。
3. 外形尺寸客製化：可配合汽車儀表板外形設計提供圓形、多邊形產品。
4. 符合車規高信賴性冷熱衝擊要求。

加工方式：配合汽車儀表板機構組裝。

產品應用：適用於行車資訊、空調系統等顯示器。



聯繫方式：南亞塑膠公司 電子材料事業部 營業四處

公司電話：886-3-3223751 轉 2713、2716 公司傳真：886-3-3125803

公司地址：33859 桃園縣蘆竹鄉南崁路一段 338 號

E-mail：s-h-chan@npc.com.tw

Automotive Liquid Crystal Display



Automotive Super Twisted Nematic Liquid Crystal Display (ASTN LCD) (NPC)

Product Features and Benefits:

1. Ultra wide temperature applications:
Operating temperature range (-40°C ~ 85°C), storage temperature range (-40°C ~ 90°C).
2. Good high temperature contrast (up to 80°C) with blind spots.
3. Customized appearance: Can be made in circular, polygonal or other shapes to coordinate with automobile dashboard designs.
4. Compliant with stringent automobile requirements such as highly reliable thermal shock resistance.

Processing Methods:

Coordinated and assembled in accordance with dashboard mechanisms.

Applications:

Driving information displays of dashboards, air conditioning system displays, and other displays..



Contact Information:

Nan Ya Plastics Corporation Electronic Materials Div. 4th Sales Dept.

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ADD.: No. 338, SECI, Nan Ken Road, Luchu Dist., Taoyuan City 33859, Taiwan (R.O.C.)

E-mail: s-h-chan@npc.com.tw

行車資訊 / 空調系統顯示器



被動矩陣式垂直配向列型液晶顯示器 (PMVA LCD) 產品 (南亞公司)

產品特性及優點：

1. 超廣溫應用：操作溫度 (-30°C ~85 °C)、儲存溫度 (-40°C ~90°C)。
2. 超高對比度 (> 1000)。
3. 超廣視角：左~右視角 >120 度且無視向死角。
4. 外形尺寸客製化：可配合汽車儀表板外形設計提供圓形、多邊形產品。
5. 符合車規高信賴性冷熱衝擊要求。

加工方式：配合汽車儀表板機構組裝。

產品應用：

儀表板內之行車資訊顯示器、空調系統顯示器。



聯繫方式：南亞塑膠公司 電子材料事業部 營業四處

公司電話：886-3-3223751 轉 2713、2716 公司傳真：886-3-3125803

公司地址：33859 桃園市蘆竹區南崁路一段 338 號

E-mail：s-h-chan@npc.com.tw

Driving Information & Air Conditioning System Display



Passive Matrix Vertical Alignment Liquid Crystal Display (PMVA LCD) (NPC)

Product Features and Benefits:

1. Ultra-wide application temperature range:
Operating temperature range (-30 °C ~ 85 °C), storage temperature range (-40 °C ~ 90 °C).
2. Ultra-high contrast (> 1,000).
3. Ultra-wide viewing angle: Left ~ right viewing angle > 120 degrees without any blind spots.
4. Customized sizes: Can be made to coordinate with car dashboard shapes in circular, polygonal, or other shape designs.
5. High reliability complies with regulatory car requirements related to hot-to-cold thermal shock.

Processing Methods:

Coordinated and assembled in accordance with dashboard mechanisms.

Applications:

Driving information displays for dashboards, air conditioning system displays, and other displays..



Contact Information:

Nan Ya Plastics Corporation Electronic Materials Div. 4th Sales Dept.

TEL: 886-3-3223751 FAX: 886-3-3125803

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E-mail: s-h-chan@npc.com.tw

產品齊全 · 品質優良 · 滿足您所有需求

V-1

Driving into the future with Formosa Plastics Group.

汽車部件

其他部件使用材料
Other Components



台塑企業
FORMOSA PLASTICS GROUP



台塑企業**汽車部件** 使用材料

汽車底部塗料、填縫膠、汽車鋼構塗料底塗
Car Undercarriage Coating / Sealant /
Underbody Steel Structures Coating





高接著力，加工性佳，不易垂滴

高接著力、防鏽及抗腐蝕性，加工性佳及不易垂滴等特性，保護車底不鏽蝕。



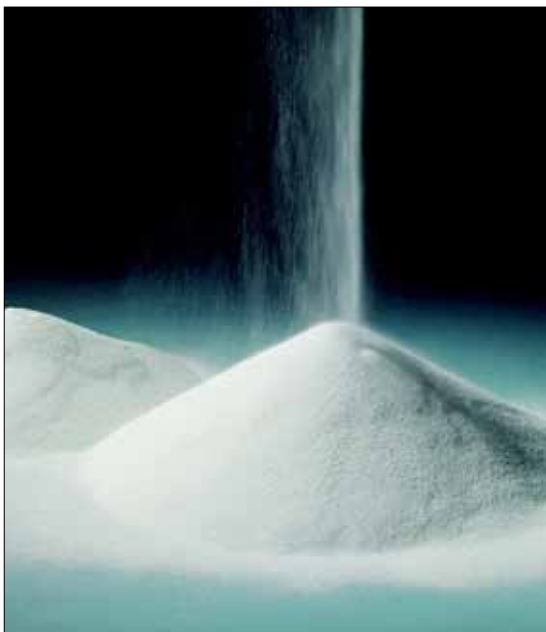


HIGH BONDING STRENGTH, EXCELLENT WORKABILITY, NON-DRIPPING

The high bonding strength, rust and corrosion resistance, good workability, non-dripping, and other beneficial properties will help protect the underbody from rusting



汽車底部塗料原料

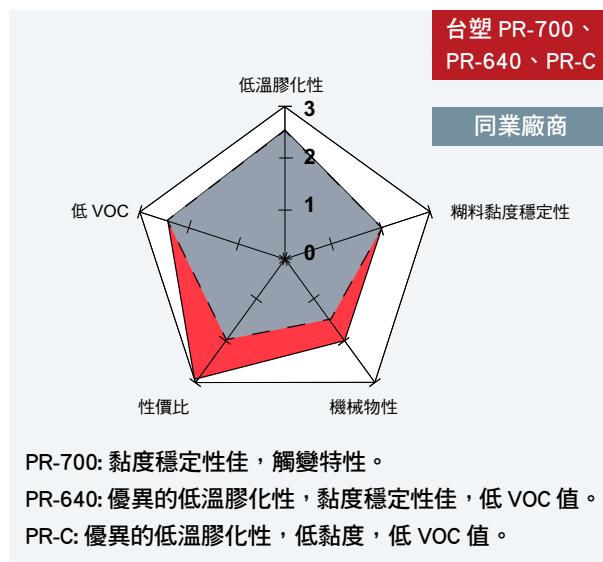


PVC 粉產品 (台塑公司)

產品特性及優點：

PVC 乳化粉用於塗料層，可使該塗層原料具有低溫加工及高搖變性質，適用於車體焊道防鏽密封或汽車底部防石擊與防鏽無氣噴塗加工等產品，該 PVC 乳化粉具有低溫膠化性、糊料黏度穩定、高剪切黏度低、低剪切黏度高、低 VOC 等特色，能廣泛應用於汽車底盤塗層之範疇。

台塑 PVC 乳化粉產品與同業廠商物性比較：



產品規格表：

產品型號	乳化粉		
	PR-700	PR-640	PR-C
K-Value	68	70	68
平均聚合度	1,100±100	1,200±100	1,100±100
揮發份 (%)	≤ 0.5 %	≤ 0.5 %	≤ 0.5 %
假比重 (g/c.c)	0.20~ 0.30	0.20~ 0.30	0.25~ 0.35
VAc 含量 (%)	-	4~ 5%	4~ 6%
發泡性	佳	佳	佳
特性及應用	黏度穩定、搖變特性	低膠化溫度、高流動性、低 VOC 值	低膠化溫度、低黏度、低 VOC 值

聯繫方式：台灣塑膠工業股份有限公司 塑膠部 營一處

公司電話：886-2-27122211 轉 6094 公司傳真：886-2-27137012

公司地址：10508 台北市松山區敦化北路 201 號前棟四樓

E-mail：chrishuang@fpc.com.tw

Raw materials for Car Undercarriage Coating



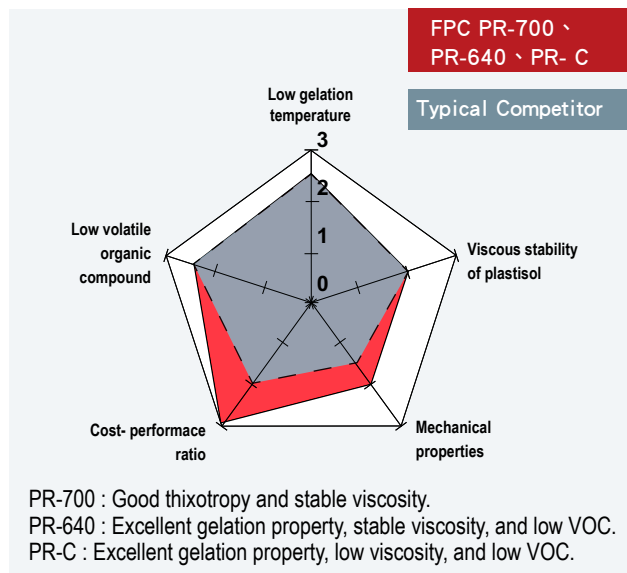
PVC Resins (FPC)

Product Features and Benefits:

The use of paste PVC in coating can enhance the coating with the properties of low-temperature processing and high thixotropy. It is ideal to use in anti-rusting and in the sealing of the car body's welding seams, or to protect the car undercarriage from stones and other debris through airless spraying.

The paste PVC has a low gelation temperature, stable viscosity, high thixotropy, low VOC, etc. It can be used extensively in the car underbody coating category.

Comparison of FPC PVC with a Typical Competitor:



Products Specifications:

Grade	Paste PVC		
	PR-700	PR-640	PR-C
K-Value	68	70	68
Polymerization Degree	1,100 ±100	1,200±100	1,100±100
Volatile Matter (%)	≤ 0.5 %	≤ 0.5 %	≤ 0.5 %
Bulk Density (g/c.c)	0.20~0.30	0.20~0.30	0.25~0.35
VOC Content (%)	—	4~5 %	4~6 %
Foamability	Good	Good	Good
Properties and Applications	Good thixotropy, stable viscosity.	Low VOC, low gelation temperature.	High flowability, Low gelation temperature, low viscosity, low VOC.

Contact Information:

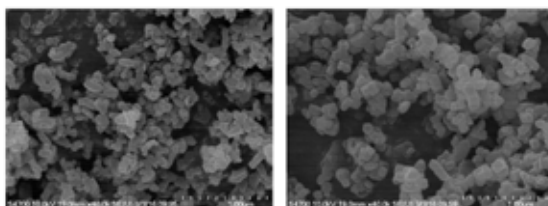
Formosa Plastics Corporation Plastics Div. Sales Dept.

TEL: 886-2-27122211 EXT. 6094 FAX: 886-2-27137012

ADD.: 4F., No. 201, Tung Hwa N. Road, Songshan Dist., Taipei City 10508, Taiwan (R.O.C.)

E-mail: chrishuang@fpc.com.tw

汽車底部塗料、填縫膠原料



FCC-200

FCC-500S

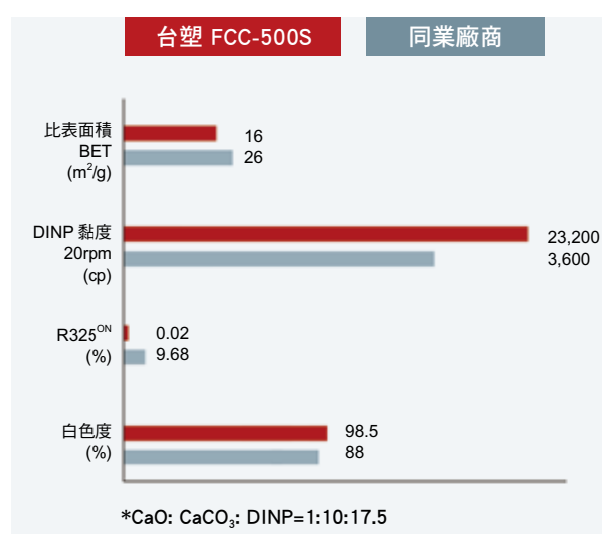
膠質碳酸鈣產品（台塑公司）

產品特性及優點：

- A. 易於配方中分散。
- B. 具良好黏度調整性及搖變性質。
- C. 易噴塗施工，施工後不易垂滴。
- D. 黏度穩定，儲存安定性佳。

加工方式：噴塗。

台塑 FCC-500S 產品與同業廠物性比較：



產品規格表：

種類			膠質碳酸鈣	
產品型號			FCC-200	FCC500S
項目	單位	測試方法	測試值	
外觀	-	-	白色粉末	白色粉末
處理劑	-	-	脂肪酸	脂肪酸
比表面積 BET	m ² /g	BET	16	16
平均粒徑	μm	SEM	0.08	0.08
體比重	g/cm ³	JIS K5101	0.26	0.28
DHEH 吸油量	cc/100g	JIS K5101	25.6	23.6
白色度	%	KETT C-1 TYPE	≥ 95	≥ 96
水份	%	JIS K5101	≤ 0.5	≤ 0.5
pH	-	JIS K5101	8.5-9.0	8.5-9.0

聯繫方式：台灣塑膠工業股份有限公司 電石部

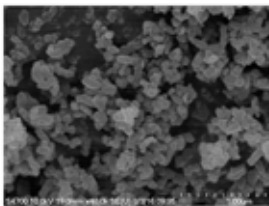
公司電話：886-2-27122211 轉 6860 公司傳真：886-2-27193261

公司地址：10508 台北市松山區敦化北路 201 號後棟四樓

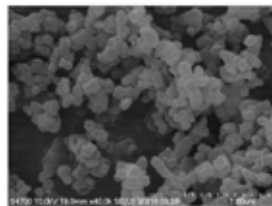
E-mail：rechellin@fpc.com.tw

Raw materials for

Car Undercarriage Coating & Sealant



FCC-200



FCC-500S

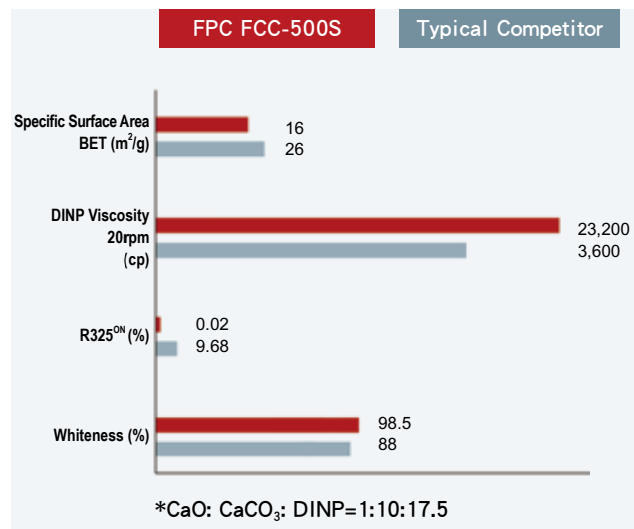
Precipitated Coated Calcium Carbonate (FPC)

Product Features and Benefits:

- A. Easily dispersed in various formulae.
- B. Easily regulated viscosity and thixotropic properties.
- C. Easy for spraying without sagging.
- D. Stable viscosity over time.

Processing Methods: Spraying.

Comparison of FPC FCC-500S with a Typical Competitor:



Products Specifications:

Type			Precipitated Coated Calcium Carbonate	
Grade			FCC-200	FCC-500S
Properties	Unit	Test Methods	Typical Value	
Appearance	-	-	White powder	White powder
Coating agent	-	-	Fatty acid	Fatty acid
Specific surface area	m ² /g	BET	16	16
Average particle size	μm	SEM	0.08	0.08
Bulk density	g/cm ³	JIS K5101	0.26	0.28
DHEH oil absorption	cc/100g	JIS K5101	25.6	23.6
Whiteness	%	KETT C-1 TYPE	≥ 95	≥ 96
Moisture	%	JIS K5101	≤ 0.5	≤ 0.5
pH	-	JIS K5101	8.5-9.0	8.5-9.0

Contact Information:

Formosa Plastics Corporation Carbide Div.

TEL: 886-2-27122211 EXT. 6860 FAX: 886-2-27193216

ADD.: 4F., No. 201, Tung Hwa N. Road, Songshan Dist., Taipei City 10508, Taiwan (R.O.C.)

E-mail: rechellin@fpc.com.tw

車底鋼構塗料底塗原料 - 環氧樹脂

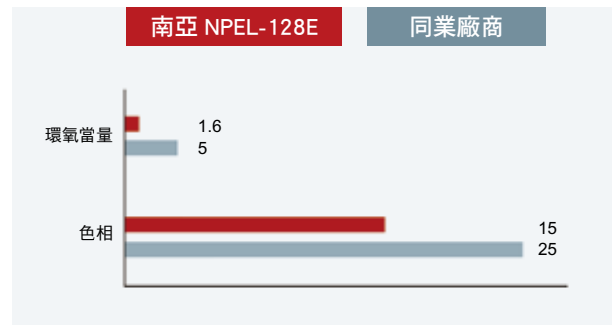


環氧樹脂產品（南亞公司）

產品特性及優點：

- A. 液態雙酚 A 型環氧樹脂 (NPEL-128E) 具高接著力，優良防銹、耐腐蝕性，低雜質含量，品質穩定性佳，適用於陽極電著塗裝 (CED Paint)。
- B. 增韌型聚丙醇環氧稀釋劑 (NPER-032) 具良好柔韌性 flexibility，優異接著力，低黏度稀釋力、加工性佳，供改質適用於陽極電著塗裝 (CED Paint)。

南亞液態雙酚 A 型環氧樹脂 (NPEL-128E) 與同業廠商比較：



產品規格表：

產品型號		NPEL-128E	NPER-032
項目	單位	平均值	
環氧當量 (EEW)	g/eq	184-190	305-335
可水解氯 (Hy-Cl)	ppm	<300	<2,000
黏度	cps/25°C	12,000-15,000	35-80
色相	G	<1	<1
水份	%	<0.6	<0.2

聯繫方式：南亞塑膠股份有限公司 電子材料事業部 產銷二組

公司電話：886-2-27122211 轉 8258 公司傳真：886-2-27182258

公司地址：10508 台北市松山區敦化北路 201 號後棟六樓

E-mail：28r10@npc.com.tw

聯繫方式：南亞電子材料（昆山）有限公司 環氧樹脂營業處

公司電話：86-512-57357080 轉 3333 公司傳真：86-512-57357081

公司地址：江蘇省昆山經濟技術開發區長江南路 201 號

E-mail：peter18@npc.com.tw

Raw materials for Underbody Steel Structures Coating - Epoxy



Epoxy Resins (NPC)

Product Features and Benefits:

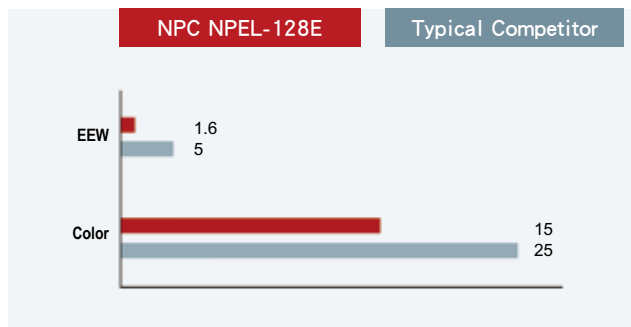
A. Liquid bisphenol A type epoxy resin (NPEL-128E):

This resin features high bonding strength, excellent rust and corrosion resistance, low impurity content, and good quality and stability; it is suitable for use in cathodic electrodeposition (CED) paint.

B. Toughened poly-propanol epoxy diluent (NPER-032):

This diluent features good flexibility, excellent bonding strength, low viscosity dilution force, and good workability; it can be modified for use in cathodic electrodeposition (CED) paint.

Comparison of NPC NPEL-128E with a Typical Competitor:



Products Specifications:

Grade		NPEL-128E	NPER-032
Properties	Unit	Typical Value	
Epoxide Equivalent Weight (EEW)	g/eq	184~190	305~335
Hydrolysable Chlorine (Hy-Cl)	ppm	<300	<2,000
Viscosity	cps/25°C	12,000~15,000	35~80
Color	G	<1	<1
Water Content	%	<0.6	<0.2

Contact Information:

Nan Ya Plastics Corporation Electronic Materials Div. Produce & marketing 2nd Dept.

TEL: 886-2-27122211 EXT. 8258 FAX: 886-2-27182258

ADD.: 6F., No. 201, Tung Hwa N. Road, Songshan Dist., Taipei City 10508, Taiwan (R.O.C.)

E-mail: 28r10@npc.com.tw

Nan Ya Electronic Materials (Kunshan) Co., Ltd. Epoxy Sales Dept.

TEL: 86-512-57357080 EXT. 3333 FAX: 86-57357081

ADD.: No. 201, Changjiang S. Road, Jiangsu, China

E-mail: peter18@npc.com.tw

台塑企業**汽車部件** 使用材料

倒車雷達控制盒、電動窗馬達外殼、
車門內側開關把手、車窗升降滑輪、
汽車內裝固緊釘扣、管線固定夾、安全帶扣元件、
排檔機構、轉向機柱套

Reverse Sensor Box/

Window Lifter Motor Housing/

Door Interior Handle/Car Window Pulley/

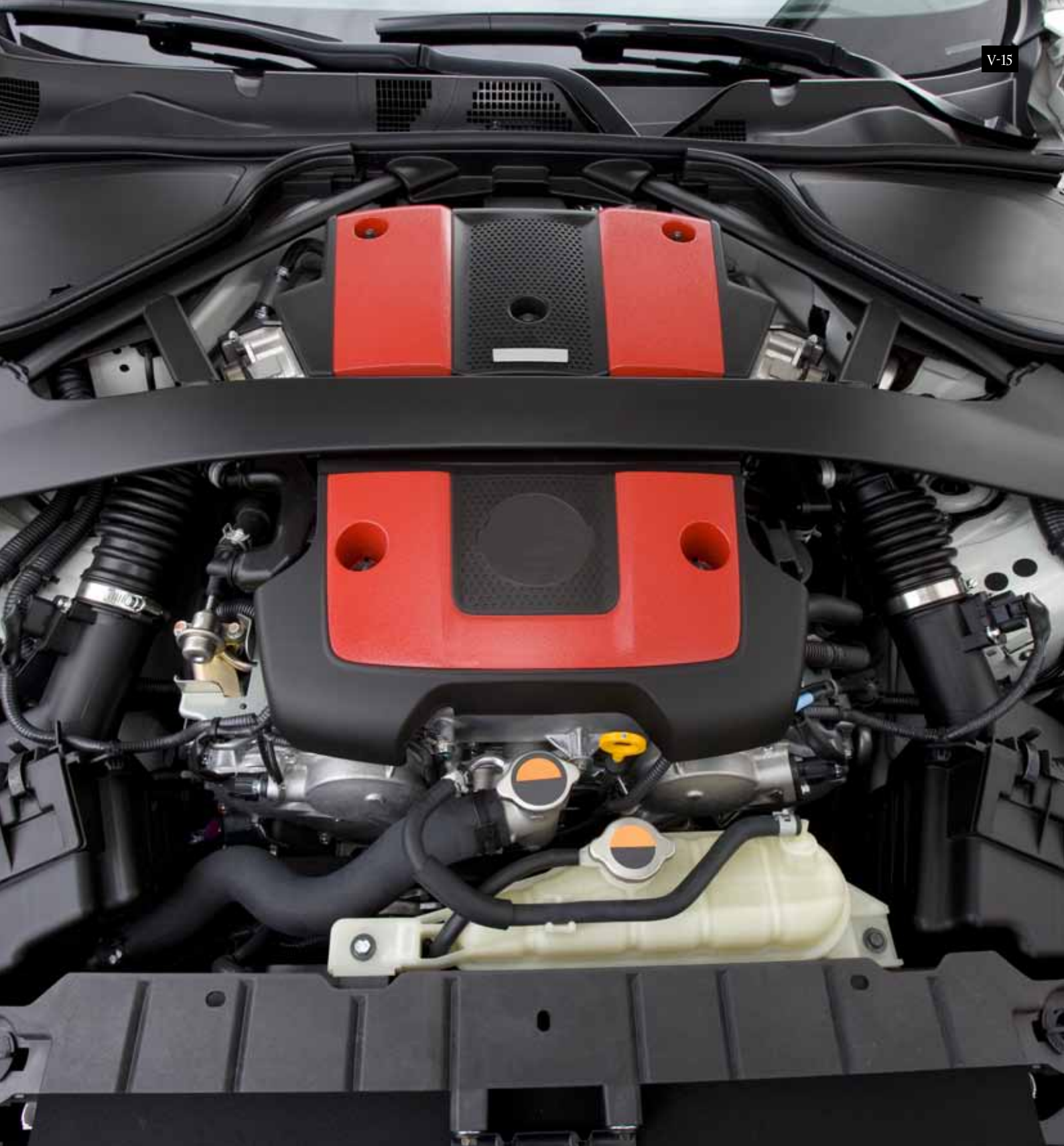
Car Interior Snap Button/

Wire Retaining Clip/

Seat Belt Component/Shifter Assembly/

Steering Column Cover

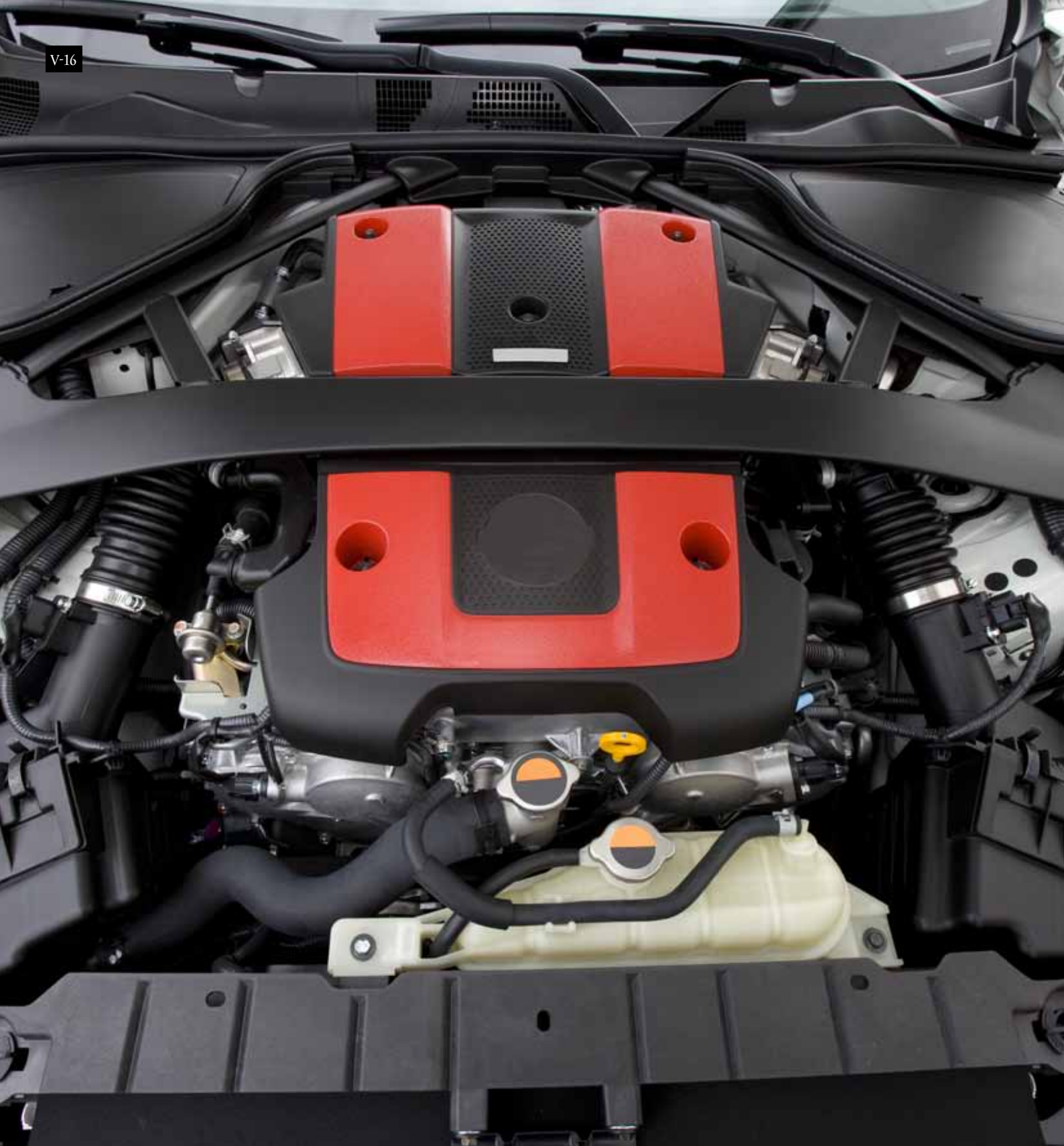




高剛性、尺寸安定性佳

高剛性、高絕緣性及尺寸安定性佳的優點，用於其他車用零件如安全帶扣環、排檔機構、倒車雷達控制盒等部件，皆可滿足您的需求。





HIGH RIGIDITY, EXCELLENT DIMENSIONAL STABILITY

The high rigidity, high insulation, dimensional stability, and other advantageous properties of materials used in such auto parts as seat belt components, shifter assemblies, reverse sensor boxes, etc. will be sure to meet your needs.



倒車雷達控制盒原料



產品規格表：

種類			PET 複材
產品型號			4410G3ANC2
特性			符合 UL 耐燃安規、機械強度佳、電氣絕緣性佳
應用			倒車雷達控制盒
項目	單位	試驗方法	平均值
熔融指數	g/10min	ASTM D1238	25
拉伸強度	kg/cm ²	ASTM D638	1,000
彎曲模數	kg/cm ²	ASTM D790	60,000
Izod 衝擊強度	kg.cm/cm	ASTM D256	6.0
熱變形溫度	°C	ASTM D648	190

改性塑膠(工程塑膠)產品(南亞公司): PET 複材
PET+15% 玻纖 規格: 4410G3ANC2

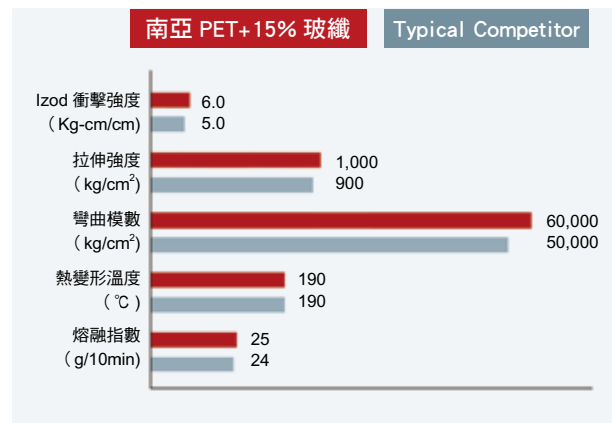
產品特性及優點：

南亞改性塑膠(工程塑膠)產品包含 PBT、PET、NYLON 6、NYLON 66、PC、PP、PPE 等系列產品，玻纖強化、耐燃等規格種類齊全，通過 ISO 9001、ISO 14001、TS 16949 認證，品質穩定，成型加工性佳。

提供製品優越之機械強度，高熱變形溫度、尺寸安定性、電器性質等，並擁有符合環保要求之非鹵素防火材料，適用於汽車內裝及外裝各種等各種零配件。

加工方式：射出成型。

南亞 PET 複材與 Typical Competitor 物性比較：



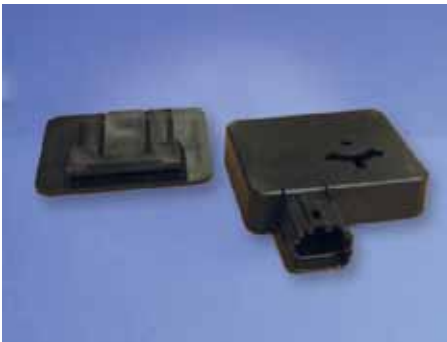
聯繫方式：南亞塑膠工業股份有限公司 塑三部 產銷四組

公司電話：886-2-27178507、886-2-27122211 轉 5814 公司傳真：886-2-27198661

公司地址：10508 台北市松山區敦化北路 201 號後棟三樓

E-mail：epnanya@npc.com.tw

Raw materials for Reverse Sensor Box



Modified Plastics (engineering plastics) (NPC): PET composite
 PET + 15% Glass Fiber Grade: 4410G3ANC2

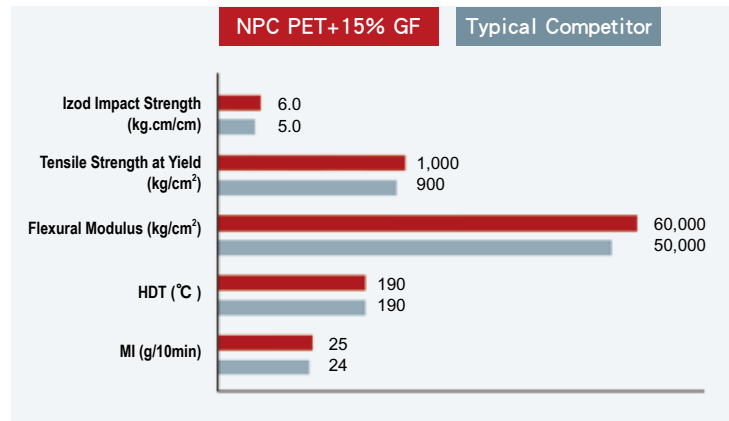
Product Features and Benefits:

Nan Ya's modified plastics (engineering plastics) are available in PBT, PET, NYLON 6, NYLON 66, PC, PP, PPE, and other materials with a wide range of specifications and properties, including reinforced glass fiber, flame retardant, stable quality, and good moldability, **all of which conform to ISO 9001, ISO 14001, and TS 16949 certifications.**

These materials can help produce products with excellent mechanical strength, high heat distortion temperature, dimensional stability, electrical properties, etc. Environmentally friendly halogen-free flame retardant materials are also available and are suitable for use in car interior/exterior decorations, as well as for various parts and accessories.

Processing Methods: Designed for injection molding.

Comparison of NPC PET Composite with a Typical Competitor:



Products Specifications:

Type			PET Composite
Grade			4410G3ANC2
Characteristic			Conforms to UL flame retardant regulations and has good mechanical strength and electrical insulation
Application			Reverse Sensor Box
Properties	Unit	Test Method	Typical Value
Melt Index	g/10min	ASTM D1238	25
Tensile Strength at Yield	kg/cm ²	ASTM D638	1,000
Flexural Modulus	kg/cm ²	ASTM D790	60,000
Izod Impact Strength	kg.cm/cm	ASTM D256	6.0
HDT	°C	ASTM D648	190

Contact Information:

Nan Ya Plastics Corporation Plastics 3rd Div. Engineering Plastics Dept.

TEL: 886-2-27178507/ 886-2-27122211 EXT. 5814 FAX: 886-2-27198661

ADD.: 3F., No. 201, Tung Hwa N. Road, Songshan Dist., Taipei City 10508, Taiwan (R.O.C.)

E-mail: epnanya@npc.com.tw

電動窗馬達外殼原料



改性塑膠 (工程塑膠) 產品 (南亞公司) : PBT 複材
PBT+30% 玻纖 規格 : 1210G6GBK2

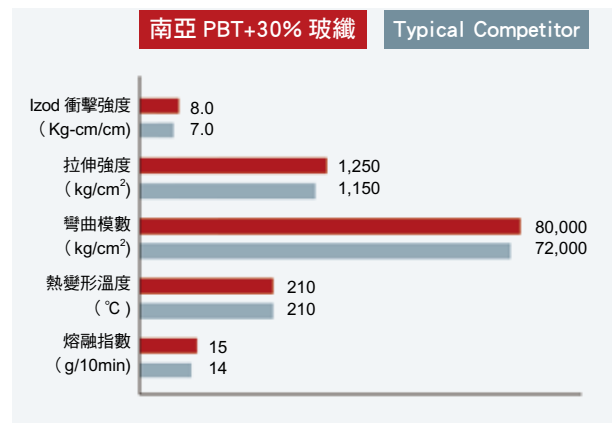
產品特性及優點 :

南亞改性塑膠 (工程塑膠) 產品包含 PBT、PET、NYLON 6、NYLON 66、PC、PP、PPE 等系列產品，玻纖強化、耐燃等規格種類齊全，通過 ISO 9001、ISO 14001、TS 16949 認證，品質穩定，成型加工性佳。

提供製品優越之機械強度，高熱變形溫度、尺寸安定性、電器性質等，並擁有符合環保要求之非鹵素防火材料，適用於汽車內裝及外裝各種等各種零配件。

加工方式：射出成型。

南亞 PBT 複材與 Typical Competitor 物性比較 :



產品規格表 :

種類			PBT 複材
產品型號			1210G6GBK2
特性			高強度、高抗熱變形、高電氣絕緣性、尺寸安定性佳
應用			電動窗馬達外殼
項目	單位	試驗方法	平均值
熔融指數	g/10min	ASTM D1238	15
拉伸強度	kg/cm ²	ASTM D638	1,250
彎曲模數	kg/cm ²	ASTM D790	80,000
Izod 衝擊強度	kg.cm/cm	ASTM D256	8.0
熱變形溫度	°C	ASTM D648	210

聯繫方式：南亞塑膠工業股份有限公司 塑三部 產銷四組

公司電話：886-2-27178507、886-2-27122211 轉 814 公司傳真：886-2-27198661

公司地址：10508 台北市敦化北路 201 號後棟三樓

E-mail：epnanya@npc.com.tw

Raw materials for Window Lifter Motor Housing



Modified plastics (engineering plastics) (NPC): PBT composite
PBT + 30% Glass Fiber Grade: 1210G6GBK2

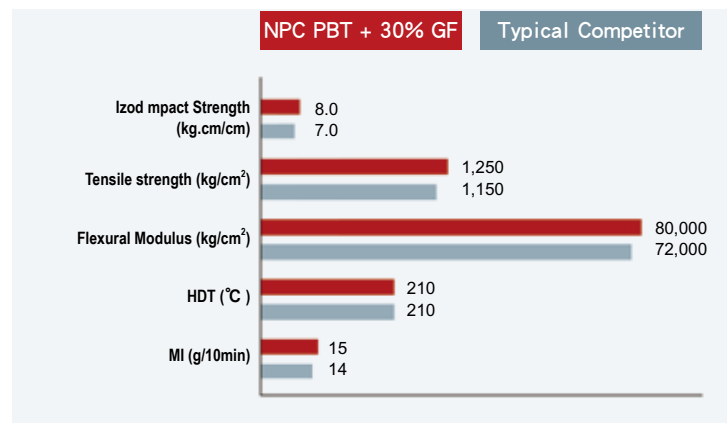
Product Features and Benefits:

Nan Ya's modified plastics (engineering plastics) are available in PBT, PET, NYLON 6, NYLON 66, PC, PP, PPE, and other materials with a wide range of specifications and properties, including reinforced glass fiber, flame retardant, stable quality, and good moldability, **all of which conform to ISO 9001, ISO 14001, and TS 16949 certifications.**

These materials can help produce products with excellent mechanical strength, high heat distortion temperature, dimensional stability, electrical properties, etc. Environmentally friendly halogen-free flame retardant materials are also available and are suitable for use in car interior/exterior decorations, as well as for various parts and accessories.

Processing Methods: Designed for injection molding.

Comparison of NPC PBT Composite with a Typical competitor:



Products Specifications:

Type			PBT Composite
Grade			1210G6GBK2
Characteristics			High tenacity, High heat distortion temperature, High electrical insulation, Good dimensional stability
Applications			Window lifter motor housing
Properties	Unit	Test Method	Typical Value
Melt Index	g/10min	ASTM D1238	15
Tensile Strength at Yield	kg/cm ²	ASTM D638	1,250
Flexural Modulus	kg/cm ²	ASTM D790	80,000
Izod Impact Strength	kg.cm/cm	ASTM D256	8.0
HDT	°C	ASTM D648	210

Contact Information:

Nan Ya Plastics Corporation Plastics 3rd Div. Engineering Plastics Dept.

TEL: 886-2-27178507/ 886-2-27122211 EXT. 5814 FAX: 886-2-27198661

ADD.: 3F., No. 201, Tung Hwa N. Road, Songshan Dist., Taipei City 10508, Taiwan (R.O.C.)

E-mail: epnanya@npc.com.tw

車門內側開關把手原料



POM 產品 (台塑公司)

台塑鋼[®] FORMOCON[®] 共聚型聚甲醛樹脂

產品特性及優點：

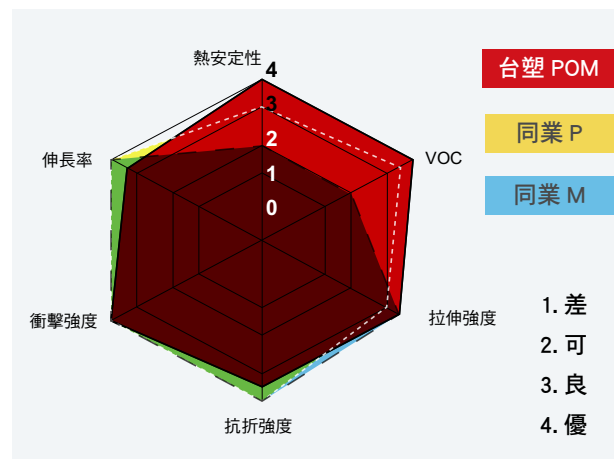
POM 為高結晶性樹脂，有下列特性：

1. 有極佳的剛性、耐蠕變及耐疲勞性；
2. 摩擦係數小，耐磨耗，具自潤性功能；
3. 熱膨脹係數小，有極佳尺寸安定性；
4. 耐油、耐有機溶劑。

主要應用於汽車內需要剛性、潤滑性、耐疲勞性等零件。

加工方式：射出、押出。

台塑 POM 產品與同業廠物性比較：



產品規格表：

產品型號			標準級				
			FM025	R6	FM090	FM130	FM270
特性			高黏度	標準增韌	標準流動	中流動	高流動
加工方式			押出/射出	射出	射出	射出	射出
項目	單位	試驗方法	平均值				
熔融指數	g/10min	ASTM D1238	2.5	6	9	13	27
拉伸強度	kg/cm ²	ASTM D638	610	620	620	620	620
抗折強度	kg/cm ²	ASTM D790	950	950	950	950	950
硬度	M-scale	ASTM D785	78	80	80	80	80
耐衝擊強度	kg.cm/cm 常溫 (23°C)	ASTM D256	7.6	7.0	6.5	6.0	5.4
熱變形溫度	°C @18.6kgf/cm ²	ASTM D648	110	110	110	110	110

聯繫方式：台灣塑膠工業股份有限公司 聚丙烯部 營業處

公司電話：886-2-27122211 轉 6137 公司傳真：886-2-27181230

公司地址：10508 台北市松山區敦化北路 201 號前棟八樓

E-mail：nico1@fpc.com.tw

Raw materials for Interior Door Handle



POM (FPC)

FORMOCON®
POLYOXYMETHYLENE (POM)
ACETAL COPOLYMER

Product Features and Benefits:

POM is a type of highly crystalline resin that possesses the following characteristics:

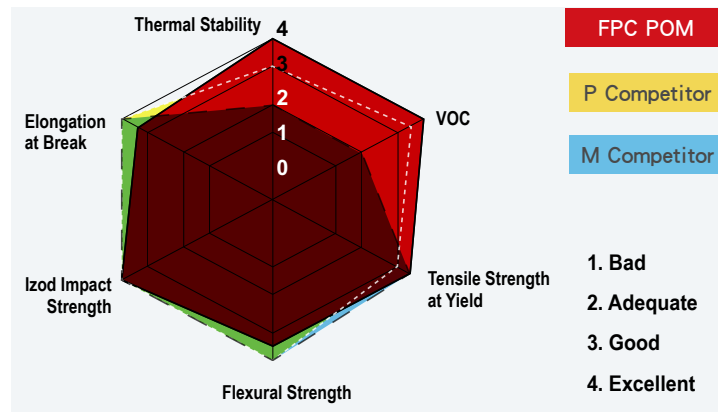
1. Excellent rigidity, creep and fatigue resistance.
2. Small coefficient of friction, wear resistance, and self-lubricating functions.
3. Small coefficient of thermal expansion, and excellent dimensional stability.
4. Oil and organic solvent resistance.

Its main applications are in interior auto parts that require rigidity, lubricity, fatigue resistance, and other such properties.

Processing Methods:

- (1) Designed for injection molding.
- (2) Designed for extrusion molding.

Comparison of FPC POM with a Typical Competitor:



Products Specifications:

Grade			General Purpose Grade				
			FM025	R6	FM090	FM130	FM270
Characteristics			High viscosity	Standard Toughening	Standard Fluidity	Medium Fluidity	High Fluidity
Processing methods			Extrusion/Injection	Injection	Injection	Injection	Injection
Properties	Unit	Test Method	Typical Value				
Melt Index	g/10min	ASTM D1238	2.5	6	9	13	27
Tensile Strength at Yield	kg/cm ²	ASTM D638	610	620	620	620	620
Flexural Strength	kg/cm ²	ASTM D790	950	950	950	950	950
Rockwell Hardness	M-scale	ASTM D785	78	80	80	80	80
Izod Impact Strength	kg.cm/cm 23°C	ASTM D256	7.6	7.0	6.5	6.0	5.4
HDT	°C @18.6kgf/cm ²	ASTM D648	110	110	110	110	110

Contact Information:

Formosa Plastics Corporation Polypropylene Div. Sales Dept.

TEL: 886-2-27122211 EXT. 6137 FAX: 886-2-27181230

ADD.: 8F., No. 201, Tung Hwa N. Road, Songshan Dist., Taipei City 10508, Taiwan (R.O.C.)

E-mail: nico1@fpc.com.tw

車窗升降滑輪原料



POM 產品 (台塑公司)

台塑鋼[®] FORMOCON[®] 共聚型聚甲醛樹脂

產品特性及優點：

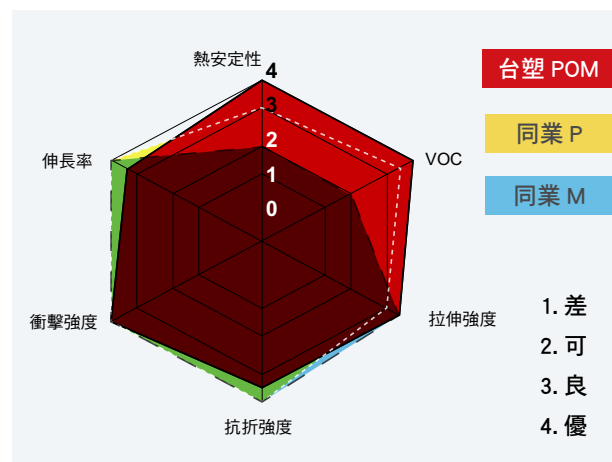
POM 為高結晶性樹脂，有下列特性：

1. 有極佳的剛性、耐蠕變及耐疲勞性；
2. 摩擦係數小，耐磨耗，具自潤性功能；
3. 熱膨脹係數小，有極佳尺寸安定性；
4. 耐油、耐有機溶劑。

主要應用於汽車內需要剛性、潤滑性、耐疲勞性等零件。

加工方式：射出 / 押出。

台塑 POM 產品與同業廠商物性比較：



產品規格表：

產品型號			標準級					
			FM025	R6	FM090	FM130	FM270	
特性			高黏度	標準增韌	標準流動	中流動	高流動	
加工方式			押出 / 射出	射出	射出	射出	射出	
項目	單位	試驗方法	平均值					
熔融指數	g/10min	ASTM D1238	2.5	6	9	13	27	
拉伸強度	kg/cm ²	ASTM D638	610	620	620	620	620	
抗折強度	kg/cm ²	ASTM D790	950	950	950	950	950	
硬度	M-scale	ASTM D785	78	80	80	80	80	
耐衝擊強度	kg.cm/cm	常溫 (23°C)	ASTM D256	7.6	7.0	6.5	6.0	5.4
熱變形溫度	°C @18.6kgf/cm ²	ASTM D648	110	110	110	110	110	

聯繫方式：台灣塑膠工業股份有限公司 聚丙烯部 營業處

公司電話：886-2-27122211 轉 6137 公司傳真：886-2-27181230

公司地址：10508 台北市松山區敦化北路 201 號前棟八樓

E-mail：nico1@fpc.com.tw

Raw materials for Car Window Pulley



POM (FPC)

FORMOCON®
POLYOXYMETHYLENE (POM)
ACETAL COPOLYMER

Product Features and Benefits:

POM is a type of highly crystalline resin that possesses the following characteristics:

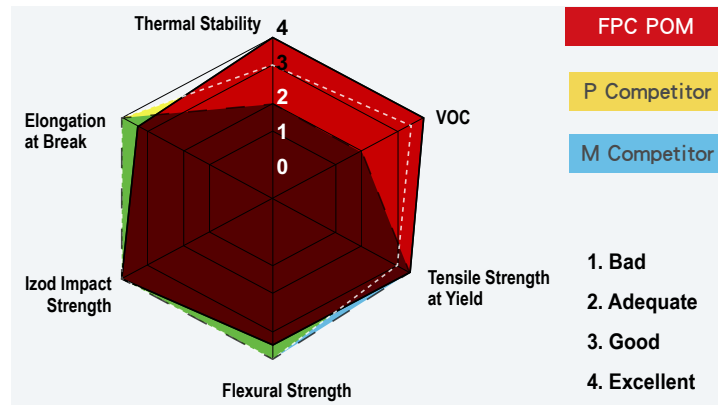
1. Excellent rigidity, creep and fatigue resistance.
2. Small coefficient of friction, wear resistance, and self-lubricating functions.
3. Small coefficient of thermal expansion, and excellent dimensional stability.
4. Oil and organic solvent resistance.

Its main applications are in interior auto parts that require rigidity, lubricity, fatigue resistance, and other such properties.

Processing Methods:

- (1) Designed for injection molding.
- (2) Designed for extrusion molding.

Comparison of FPC POM with a Typical Competitor:



Products Specifications:

Grade			General Purpose Grade				
			FM025	R6	FM090	FM130	FM270
Characteristics			High viscosity	Standard Toughening	Standard Fluidity	Medium Fluidity	High Fluidity
Processing methods			Extrusion/Injection	Injection	Injection	Injection	Injection
Properties	Unit	Test Method	Typical Value				
Melt Index	g/10min	ASTM D1238	2.5	6	9	13	27
Tensile Strength at Yield	kg/cm ²	ASTM D638	610	620	620	620	620
Flexural Strength	kg/cm ²	ASTM D790	950	950	950	950	950
Rockwell Hardness	M-scale	ASTM D785	78	80	80	80	80
Izod Impact Strength	kg.cm/cm 23°C	ASTM D256	7.6	7.0	6.5	6.0	5.4
HDT	°C @18.6kgf/cm ²	ASTM D648	110	110	110	110	110

Contact Information:

Formosa Plastics Corporation Polypropylene Div. Sales Dept.

TEL: 886-2-27122211 EXT. 6137 FAX: 886-2-27181230

ADD.: 8F., No. 201, Tung Hwa N. Road, Songshan Dist., Taipei City 10508, Taiwan (R.O.C.)

E-mail: nico1@fpc.com.tw

汽車內裝固緊釘釦原料



POM 產品 (台塑公司)

台塑鋼[®] FORMOCON[®] 共聚型聚甲醛樹脂

產品特性及優點：

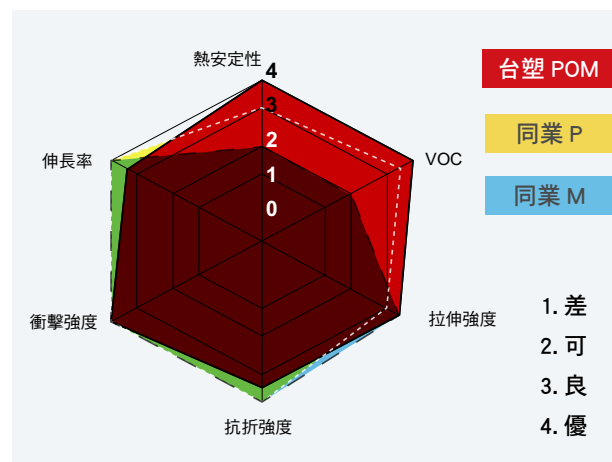
POM 為高結晶性樹脂，有下列特性：

1. 有極佳的剛性、耐蠕變及耐疲勞性；
2. 摩擦係數小，耐磨耗，具自潤性功能；
3. 熱膨脹係數小，有極佳尺寸安定性；
4. 耐油、耐有機溶劑。

主要應用於汽車內需要剛性、潤滑性、耐疲勞性等零件。

加工方式：射出 / 押出。

台塑 POM 產品與同業廠物性比較：



產品規格表：

產品型號			標準級				
			FM025	R6	FM090	FM130	FM270
特性			高黏度	標準增韌	標準流動	中流動	高流動
加工方式			押出 / 射出	射出	射出	射出	射出
項目	單位	試驗方法	平均值				
熔融指數	g/10min	ASTM D1238	2.5	6	9	13	27
拉伸強度	kg/cm ²	ASTM D638	610	620	620	620	620
抗折強度	kg/cm ²	ASTM D790	950	950	950	950	950
硬度	M-scale	ASTM D785	78	80	80	80	80
耐衝擊強度	kg.cm/cm 常溫 (23°C)	ASTM D256	7.6	7.0	6.5	6.0	5.4
熱變形溫度	°C @18.6kgf/cm ²	ASTM D648	110	110	110	110	110

聯繫方式：台灣塑膠工業股份有限公司 聚丙烯部 營業處

公司電話：886-2-27122211 轉 6137 公司傳真：886-2-27181230

公司地址：10508 台北市松山區敦化北路 201 號前棟八樓

E-mail：nico1@fpc.com.tw

Raw materials for Car Interior Snap Button



POM (FPC)

FORMOCON®
POLYOXYMETHYLENE (POM)
ACETAL COPOLYMER

Product Features and Benefits:

POM is a type of highly crystalline resin that possesses the following characteristics:

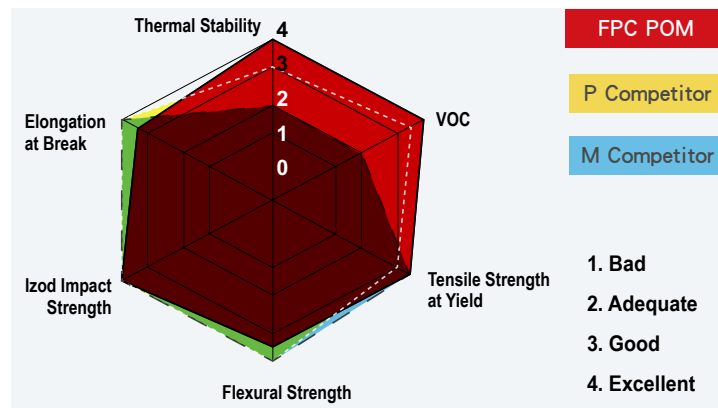
1. Excellent rigidity, creep and fatigue resistance.
2. Small coefficient of friction, wear resistance, and self-lubricating functions.
3. Small coefficient of thermal expansion, and excellent dimensional stability.
4. Oil and organic solvent resistance.

Its main applications are in interior auto parts that require rigidity, lubricity, fatigue resistance, and other such properties.

Processing Methods:

- (1) Designed for injection molding.
- (2) Designed for extrusion molding.

Comparison of FPC POM with a Typical Competitor:



Products Specifications:

Grade			General Purpose Grade				
			FM025	R6	FM090	FM130	FM270
Characteristics			High viscosity	Standard Toughening	Standard Fluidity	Medium Fluidity	High Fluidity
Processing methods			Extrusion/Injection	Injection	Injection	Injection	Injection
Properties	Unit	Test Method	Typical Value				
Melt Index	g/10min	ASTM D1238	2.5	6	9	13	27
Tensile Strength at Yield	kg/cm ²	ASTM D638	610	620	620	620	620
Flexural Strength	kg/cm ²	ASTM D790	950	950	950	950	950
Rockwell Hardness	M-scale	ASTM D785	78	80	80	80	80
Izod Impact Strength	kg.cm/cm 23°C	ASTM D256	7.6	7.0	6.5	6.0	5.4
HDT	°C @18.6kgf/cm ²	ASTM D648	110	110	110	110	110

Contact Information:

Formosa Plastics Corporation Polypropylene Div. Sales Dept.

TEL: 886-2-27122211 EXT. 6137 FAX: 886-2-27181230

ADD.: 8F., No. 201, Tung Hwa N. Road, Songshan Dist., Taipei City 10508, Taiwan (R.O.C.)

E-mail: nico1@fpc.com.tw

管線固定夾原料



POM 產品 (台塑公司)

台塑鋼[®] FORMOCON[®] 共聚型聚甲醛樹脂

產品特性及優點：

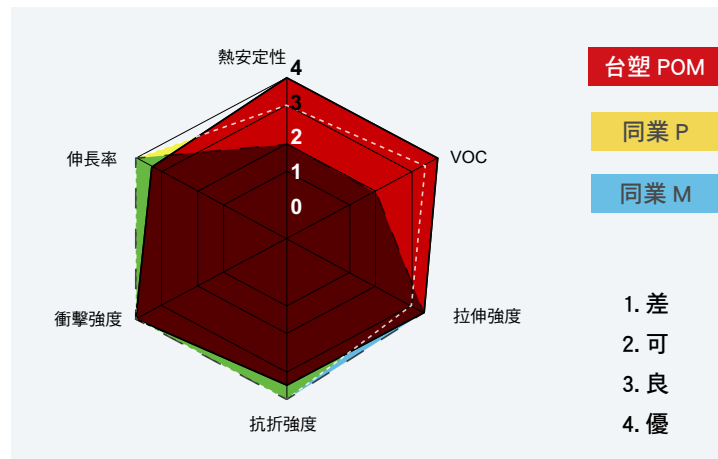
POM 為高結晶性樹脂，有下列特性：

1. 有極佳的剛性、耐蠕變及耐疲勞性；
2. 摩擦係數小，耐磨耗，具自潤性功能；
3. 熱膨脹係數小，有極佳尺寸安定性；
4. 耐油、耐有機溶劑。

主要應用於汽車內需要剛性、潤滑性、耐疲勞性等零件。

加工方式：射出 / 押出。

台塑 POM 產品與同業廠商物性比較：



產品規格表：

產品型號			標準級					
			FM025	R6	FM090	FM130	FM270	
特性			高黏度	標準增韌	標準流動	中流動	高流動	
加工方式			押出 / 射出	射出	射出	射出	射出	
項目	單位	試驗方法	平均值					
熔融指數	g/10min	ASTM D1238	2.5	6	9	13	27	
拉伸強度	kg/cm ²	ASTM D638	610	620	620	620	620	
抗折強度	kg/cm ²	ASTM D790	950	950	950	950	950	
硬度	M-scale	ASTM D785	78	80	80	80	80	
耐衝擊強度	kg.cm/cm	常溫 (23°C)	ASTM D256	7.6	7.0	6.5	6.0	5.4
熱變形溫度	°C @18.6kgf/cm ²	ASTM D648	110	110	110	110	110	

聯繫方式：台灣塑膠工業股份有限公司 聚丙烯部 營業處

公司電話：886-2-27122211 轉 6137 公司傳真：886-2-27181230

公司地址：10508 台北市松山區敦化北路 201 號前棟八樓

E-mail：nico1@fpc.com.tw

Raw materials for Wire Retaining Clip



POM (FPC)

FORMOCON®
POLYOXYMETHYLENE (POM)
ACETAL COPOLYMER

Product Features and Benefits:

POM is a type of highly crystalline resin that possesses the following characteristics:

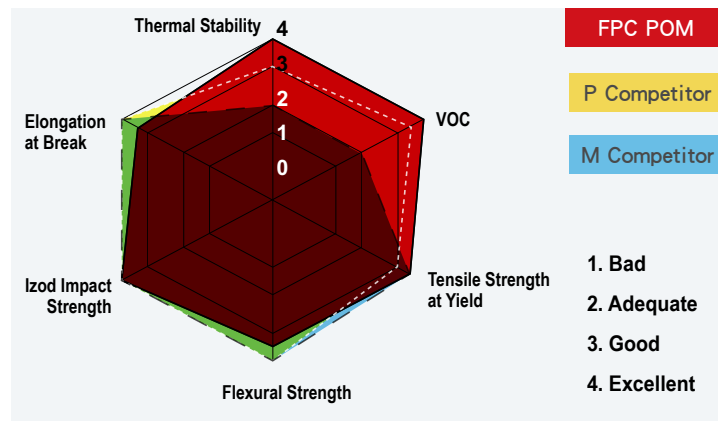
1. Excellent rigidity, creep and fatigue resistance.
2. Small coefficient of friction, wear resistance, and self-lubricating functions.
3. Small coefficient of thermal expansion, and excellent dimensional stability.
4. Oil and organic solvent resistance.

Its main applications are in interior auto parts that require rigidity, lubricity, fatigue resistance, and other such properties.

Processing Methods:

- (1) Designed for injection molding.
- (2) Designed for extrusion molding.

Comparison of FPC POM with a Typical Competitor:



Products Specifications:

Grade			General Purpose Grade				
			FM025	R6	FM090	FM130	FM270
Characteristics			High viscosity	Standard Toughening	Standard Fluidity	Medium Fluidity	High Fluidity
Processing methods			Extrusion/Injection	Injection	Injection	Injection	Injection
Properties	Unit	Test Method	Typical Value				
Melt Index	g/10min	ASTM D1238	2.5	6	9	13	27
Tensile Strength at Yield	kg/cm ²	ASTM D638	610	620	620	620	620
Flexural Strength	kg/cm ²	ASTM D790	950	950	950	950	950
Rockwell Hardness	M-scale	ASTM D785	78	80	80	80	80
Izod Impact Strength	kg.cm/cm 23°C	ASTM D256	7.6	7.0	6.5	6.0	5.4
HDT	°C @18.6kgf/cm ²	ASTM D648	110	110	110	110	110

Contact Information:

Formosa Plastics Corporation Polypropylene Div. Sales Dept.

TEL: 886-2-27122211 EXT. 6137 FAX: 886-2-27181230

ADD.: 8F., No. 201, Tung Hwa N. Road, Songshan Dist., Taipei City 10508, Taiwan (R.O.C.)

E-mail: nico1@fpc.com.tw

安全帶扣元件原料



Formolene 6535N 同時具有健全的耐衝擊及剛性的特性加工性能，並可用於多種造型內裝裝飾上，提供乘客一個舒適及行李放置的空間。

Formolene® PP 產品 (台塑美國公司)

台塑美國公司提供多種的聚丙烯樹脂產品，適用於車用市場各部件加工應用。

Formolene® PP 設計可達到全球車廠 (OEM) 引擎室各部件嚴苛的規範，同時提供優化的加工及二次組裝製造的特性。

Formolene® PP 具有多種的車用級規格樹脂，適用於低熔指射出成型與高熔指射出成型及複合材混煉等加工方式，提供耐衝擊性與剛性平衡的特點，且能使產品輕量化，提升生產效率的優勢以降低加工成本。

(一) Formolene® 6535N

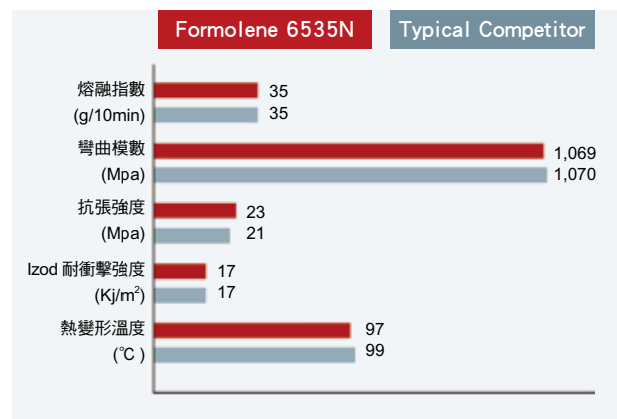
產品特性及優點：

6535N 為高熔指耐衝擊 PP 射出級共聚物，熔融指數 35，具有優異的衝擊強度與剛性平衡性，顏色分散性良好及低光澤特性，主要用於乘客腰身下汽車內裝應用。

6535N 通過 General Motors, Toyota, Renault - Nissan, Fiat-Chrysler Automobiles and Ford 等車廠認證。

加工方式：射出成型。

Formolene 6535N 產品與 Typical Competitor 物性比較：



認證：GMW 16208-T1, Toyota TSM 5514G -2, Renault- Nissan AS5,FCA MSDB-500 CPN 3560 & 4732, Ford WSS-M4D- 638-B.

Raw materials for Seat Belt Component



Formolene 6535N offers an excellent balance of impact and stiffness properties offering excellent design freedom for many types of decorative interior trim components from passenger comfort areas to cargo storage.

Formolene® PP Resins (FPC USA)

FPC USA offers a broad range of polypropylene resins for the transportation market. Our Formolene automotive resins are designed to meet the design demands of global automotive OEM specifications, as well as to provide for optimized processing and secondary fabrication assembly.

Formolene polypropylene automotive resins are available for low MFR extrusion processes and high MFR injection molding and compounding processes, offering a broad range of impact stiffness balanced properties, in line with cost reduction efforts in terms of part lightweighting and increased production rates.

(I) Formolene® 6535N

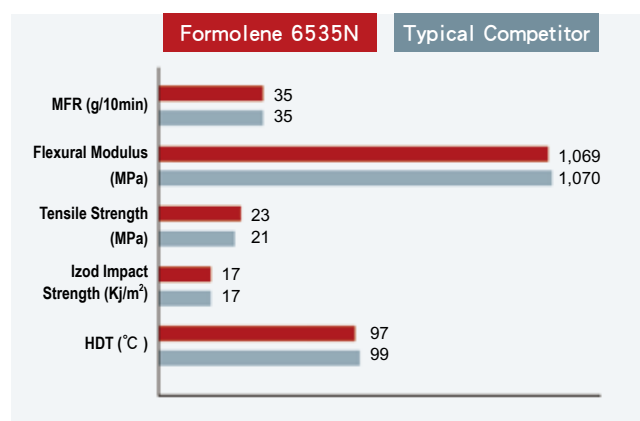
Product Features and Benefits:

6535N is a 35 MFR injection molding grade medium impact polypropylene copolymer designed for interior trim applications below the waistline. It exhibits preferred OEM low gloss characteristics, with excellent grain definition and is designed for molded in color applications.

OEM approved by General Motors, Toyota, Renault - Nissan, Fiat-Chrysler Automobiles, and Ford.**

Processing Methods: Designed for injection molding.

Comparison of Formolene 6535N with a Typical Competitor:



OEM Approvals:

****GMW 16208-T1, Toyota TSM 5514G -2, Renault-Nissan AS5, FCA MSDB-500 CPN 3560 & 4732, Ford WSS-M4D- 638-B.**



Formolene 6575N 具備高熔融指數，同時具有優異的耐衝擊及剛性平衡性，良好加工性能，可製作各種形狀薄壁化的內部車用裝飾零件，輕量化，提供乘客舒適及行李放置的空間，並於射出加工上能夠節省能耗。

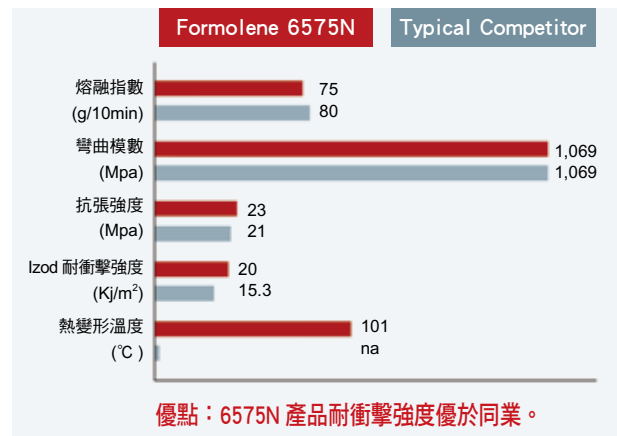
(二) Formolene® 6575N

產品特性及優點：

6575N 是一個高熔指中度耐衝擊的射出成型級 PP 共聚合物，熔融指數 75，主要可用於車用內裝乘客腰部以下大型的飾板，包含休旅車或大卡車座位及行李區分隔板。優異的射出成型加工上具有經濟效益，與熔融指數 35 同等級的用料相比，可以降低射出壓力、溫度與模具的鎖模力。具有優良的紋理染色加工，與色母混合分散佳，飾件顏色均勻及光澤度穩定的特性。

加工方式：射出成型。

Formolene 6575N 產品與 Typical Competitor 物性比較：



產品規格表：

產品型號			6535N	6575N
項目	單位	試驗方法	平均值	
熔融指數	g/10min	ASTM D1238	35	75
彎曲模數	MPa @ 1% secant	ASTM D790	1,069	1,069
抗張強度	MPa	ASTM D638	23	23
Izod 衝擊強度	@ RT Kj/m ²	ASTM D256	17	20
	@ -30 Dec C Kj/m ²		na	na
熱變形溫度	Dec C @ 0.45MPa	ASTM D648	97	101

聯繫方式：Formosa Plastics Corporation, U.S.A.

公司電話：1-888-372-8723 聯絡人：Simon Hwang

公司地址：9 Peach Tree Hill Rd., Livingston, NJ 07039

E-mail：shwang@fpcusa.com



Formolene 6575N, with elevated MFR, offers an excellent balance of impact and stiffness properties offering improved design freedom for many types of decorative interior trim components from passenger comfort areas to cargo storage, whilst delivering energy savings in the injection molding process.

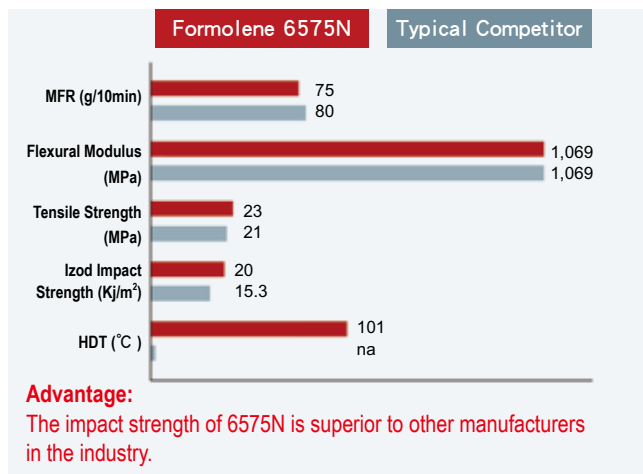
(II) Formolene® 6575N

Product Features and Benefits:

6575N is a 75 MFR injection molding grade medium impact polypropylene copolymer designed for large interior trim applications below the waistline, including cargo areas and the trunk. It exhibits superior injection molding economy for large interior parts in terms of reduced injection pressure, melt temperature and mold clamp tonnage compared to typical 35 MFR interior trim impact copolymers, whilst delivering low gloss and excellent molded in color dispersion with color masterbatches.

Processing Methods: Designed for injection molding.

Comparison of Formolene 6575N with a Typical Competitor:



Products Specifications:

Grade			6535N	6575N
Properties	Unit	Test Method	Typical Value	
MFR	g/10min	ASTM D1238	35	75
Flexural Modulus	MPa @ 1% secant	ASTM D790	1,069	1,069
Tensile Strength	MPa	ASTM D638	23	23
Notched Izod Impact Strength	@ RT Kj/m ²	ASTM D256	17	20
	@ -30 Dec C Kj/m ²		na	na
HDT	Dec C @ 0.45MPa	ASTM D648	97	101

Contact Information:

Formosa Plastics Corporation, U.S.A.

TEL: 1-888-372-8723 Contact: Simon Hwang
ADD.: 9 Peach Tree Hill Rd., Livingston, NJ 07039
E-mail: shwang@fpcusa.com

排檔機構原料



改性塑膠(工程塑膠)產品(南亞公司): Nylon 66 複材

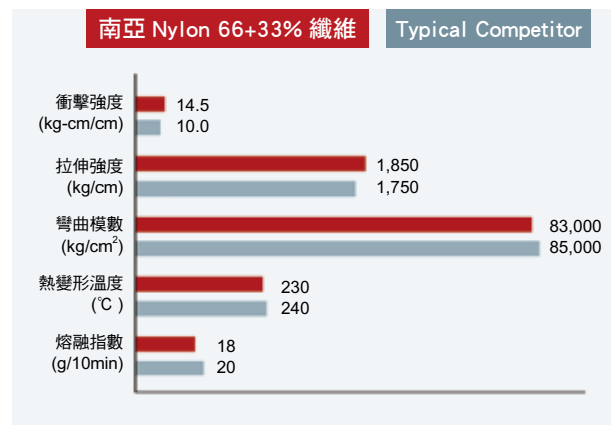
Nylon 66+33% 纖維 規格: 6210GCFNC1

產品特性及優點:

南亞改性塑膠(工程塑膠)產品包含 PBT、PET、NYLON 6、NYLON 66、PC、PP、PPE 等系列產品, 玻纖強化、耐燃等規格種類齊全, 通過 ISO 9001、ISO 14001、TS 16949 認證, 品質穩定, 成型加工性佳, 提供製品優越之機械強度, 高熱變形溫度、尺寸安定性、電器性質等, 並擁有符合環保要求之非鹵素防火材料, 適用於汽車內裝及外裝各種等各種零配件。

加工方式: 射出成型。

南亞 Nylon 66 複材與 Typical Competitor 物性比較:



產品規格表:

種類			Nylon66 複材
產品型號			6210GCFNC1
特性			高機械強度、高抗熱變形、表面佳
應用			排檔機構
項目	單位	試驗方法	平均值
熔融指數	g/10min	ASTM D1238	18
拉伸強度	kg/cm ²	ASTM D638	1,850
彎曲模數	kg/cm ²	ASTM D790	83,000
Izod 衝擊強度	kg.cm/cm	ASTM D256	14.5
熱變形溫度	°C	ASTM D648	230

聯繫方式: 南亞塑膠工業股份有限公司 塑三部 產銷四組

公司電話: 886-2-27178507、886-2-27122211 轉 5814 公司傳真: 886-2-27198661

公司地址: 10508 台北市松山區敦化北路 201 號後棟三樓

E-mail: epanya@npc.com.tw

Raw materials for Shifter Assembly



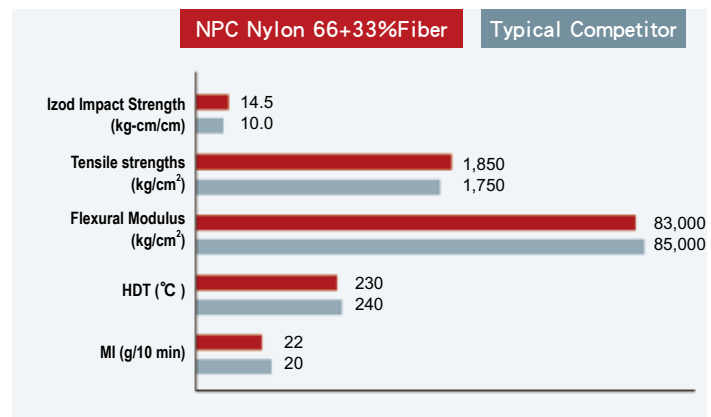
Modified plastics (engineering plastics) (NPC): Nylon 66 composite
Nylon 66 + 33% Fiber Grade: 6210GCFNC1

Product Features and Benefits:

Nan Ya's modified plastics (engineering plastics) are available in PBT, PET, NYLON 6, NYLON 66, PC, PP, PPE, and other materials with a wide range of specifications and properties, including reinforced glass fiber, flame retardant, stable quality, and good moldability, all of which conform to ISO 9001, ISO 14001, and TS 16949 certifications. These materials can help produce products with excellent mechanical strength, high heat distortion temperature, dimensional stability, electrical properties, etc. Environmentally friendly halogen-free flame retardant materials are also available and are suitable for use in car interior/ exterior decorations, as well as in various parts and accessories.

Processing Methods: Designed for injection molding.

Comparison of NPC Nylon 66 Composite with a Typical Competitor:



Products Specifications:

Type			Nylon 66 Composite
Grade			6210GCFNC1
Characteristics			High mechanical strength, High heat distortion temperature, Good surface appearance
Applications			Shifter assembly
Properties	Unit	Test Method	Typical Value
Melt Index	g/10min	ASTM D1238	18
Tensile Strength at Yield	kg/cm ²	ASTM D638	1,850
Flexural Modulus	kg/cm ²	ASTM D790	83,000
Izod impact Strength	kg.cm/cm	ASTM D256	14.5
HDT	°C	ASTM D648	230

Contact Information:

Nan Ya Plastics Corporation Plastics 3rd Div. Engineering Plastics Dept

TEL: 886-2-27178507/ 886-2-27122211 EXT. 5814 FAX: 886-2-27198661

ADD.: 3F., No. 201, Tung Hwa N. Road, Songshan Dist., Taipei City 10508, Taiwan (R.O.C.)

E-mail: epnanya@npc.com.tw

轉向機柱套



Formolene 6535N 同時具有健全的耐衝擊及剛性的特性加工性能，並可用於多種造型內裝裝飾上，提供乘客一個舒適及行李放置的空間。

Formolene® PP 產品 (台塑美國公司)

台塑美國公司提供多種的聚丙烯樹脂產品，適用於車用市場各部件加工應用。

Formolene® PP 設計可達到全球車廠 (OEM) 引擎室各部件嚴苛的規範，同時提供優化的加工及二次組裝製造的特性。

Formolene® PP 具有多種的車用級規格樹脂，適用於低熔指押出成型與高熔指射出成型及複合材混煉等加工方式，提供耐衝擊性與剛性平衡的特點，且能使產品輕量化，提升生產效率的優勢以降低加工成本。

(一) Formolene® 6535N

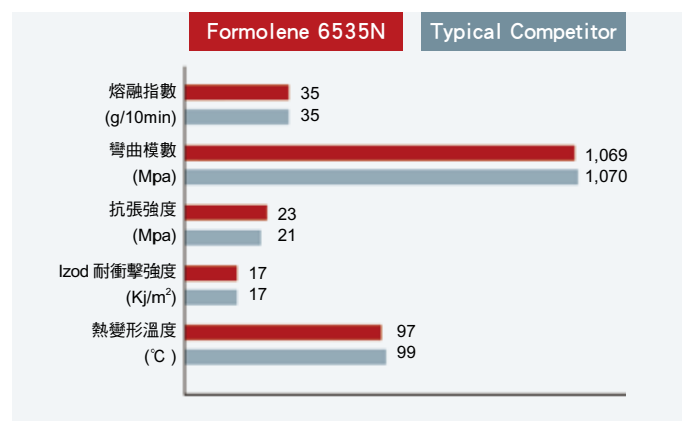
產品特性及優點：

6535N 為高熔指耐衝擊 PP 射出級共聚物，熔融指數 35，具有優異的衝擊強度與剛性平衡性，顏色分散性良好及低光澤特性，主要用於乘客腰身下汽車內裝應用。

6535N 通過 General Motors, Toyota, Renault - Nissan, Fiat-Chrysler Automobiles and Ford 等車廠認證。

加工方式：射出成型。

Formolene 6535N 產品與 Typical Competitor 物性比較：



認證：GMW 16208-T1, Toyota TSM 5514G -2, Renault-Nissan AS5, FCA MSDB-500 CPN 3560 & 4732, Ford WSS-M4D- 638-B.

Raw materials for Steering Column Cover



Formolene 6535N offers an excellent balance of impact and stiffness properties offering excellent design freedom for many types of decorative interior trim components from passenger comfort areas to cargo storage.

Formolene® PP Resins (FPC USA)

FPC USA offers a broad range of polypropylene resins for the transportation market. Our Formolene automotive resins are designed to meet the design demands of global automotive OEM specifications, as well as to provide for optimized processing and secondary fabrication assembly.

Formolene polypropylene automotive resins are available for low MFR extrusion processes and high MFR injection molding and compounding processes, offering a broad range of impact stiffness balanced properties, in line with cost reduction efforts in terms of part lightweighting and increased production rates.

(I) Formolene® 6535N

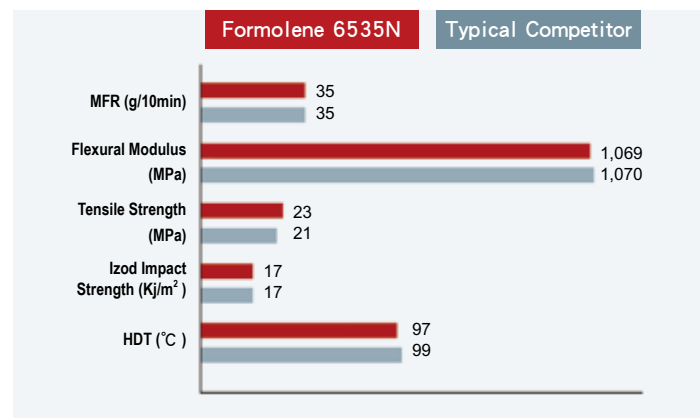
Product Features and Benefits:

6535N is a 35 MFR injection molding grade medium impact polypropylene copolymer designed for interior trim applications below the waistline. It exhibits preferred OEM low gloss characteristics, with excellent grain definition and is designed for molded-in color applications.

OEM approved by General Motors, Toyota, Renault - Nissan, Fiat-Chrysler Automobiles, and Ford.**

Processing Methods: Designed for injection molding.

Comparison of Formolene 6535N with a Typical Competitor:



OEM Approvals:

****GMW 16208-T1, Toyota TSM 5514G -2, Renault-Nissan AS5, FCA MSDB-500 CPN 3560 & 4732, Ford WSS-M4D- 638-B.**



Formolene 6575N 具備高熔融指數，同時具有優異的耐衝擊及剛性平衡性，良好加工性能，可製作各種形狀薄壁化的內部車用裝飾零件，輕量化，提供乘客舒適及行李放置的空間，並於射出加工上能夠節省能耗。

產品規格表：

產品型號			6535N	6575N
項目	單位	試驗方法	平均值	
熔融指數	g/10min	ASTM D1238	35	75
彎曲模數	MPa @ 1% secant	ASTM D790	1,069	1,069
抗張強度	MPa	ASTM D638	23	23
Izod 衝擊強度	@ RT KJ/m ²	ASTM D256	17	20
	@ -30 Dec C KJ/m ²		na	na
熱變形溫度	Dec C @ 0.45MPa	ASTM D648	97	101

聯繫方式：Formosa Plastics Corporation, U.S.A.

公司電話：1-888-372-8723 聯絡人：Simon Hwang

公司地址：9 Peach Tree Hill Rd., Livingston, NJ 07039

E-mail：shwang@fpcusa.com

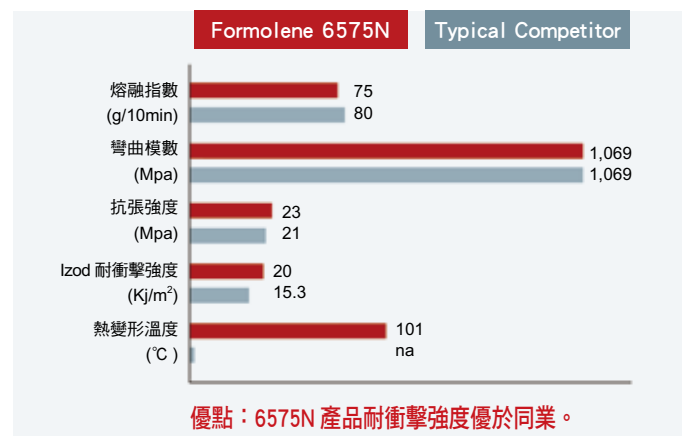
(二) Formolene® 6575N

產品特性及優點：

6575N 是一個高熔指中度耐衝擊的射出成型級 PP 共聚物，熔融指數 75，主要可用於車用內裝乘客腰部以下大型的飾板，包含休旅車或大卡車座位及行李區分隔板。優異的射出成型加工上具有經濟效益，與熔融指數 35 同等級的用料相比，可以降低射出壓力、溫度與模具的鎖模力。具有優良的紋理染色加工，與色母混合分散佳，飾件顏色均勻及光澤度穩定的特性。

加工方式：射出成型。

Formolene 6575N 產品與 Typical Competitor 物性比較：





Formolene 6575N, with elevated MFR, offers an excellent balance of impact and stiffness properties offering improved design freedom for many types of decorative interior trim components from passenger comfort areas to cargo storage, whilst delivering energy savings in the injection molding process.

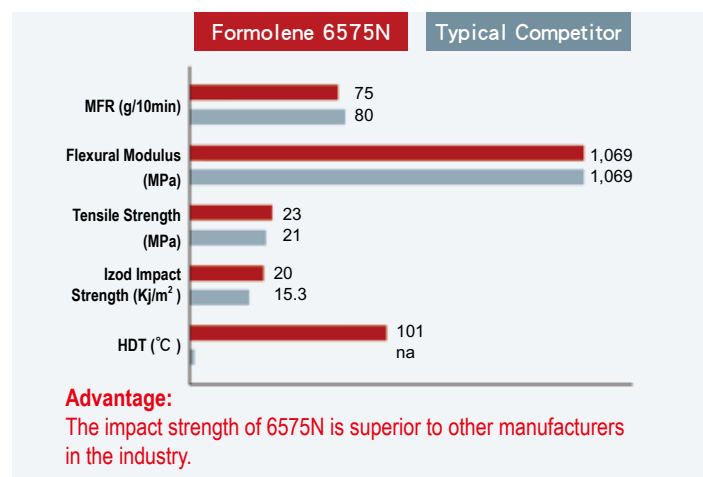
(II) Formolene® 6575N

Product Features and Benefits:

6575N is a 75 MFR injection molding grade medium impact polypropylene copolymer designed for large interior trim applications below the waistline, including cargo areas and the trunk. It exhibits superior injection molding economy for large interior parts in terms of reduced injection pressure, melt temperature and mold clamp tonnage compared with typical 35 MFR interior trim impact copolymers, whilst delivering low gloss and excellent molded in color dispersion with color masterbatches.

Processing Methods: Designed for injection molding.

Comparison of Formolene 6575N with a Typical Competitor:



Products Specifications:

Grade			6535N	6575N
Properties	Unit	Test Method	Typical Value	
MFR	g/10min	ASTM D1238	35	75
Flexural Modulus	MPa @ 1% secant	ASTM D790	1,069	1,069
Tensile Strength	MPa	ASTM D638	23	23
Notched Izod Impact Strength	@ RT KJ/m ²	ASTM D256	17	20
	@ -30 Dec C KJ/m ²		na	na
HDT	Dec C @ 0.45MPa	ASTM D648	97	101

Contact Information:

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