



## 南亞FM板 NAN YA FM Plate



南亞塑膠工業股份有限公司  
NAN YA PLASTICS CORPORATION

## 特性/ Characteristics



### 1. 優異之耐燃性及低發煙量：

本產品通過美國FM Global制定之無塵室用材料之防火標準FM4910，具備耐燃燒、低發煙量之特性，適用於電子業及半導體使用。

### 2. 耐化學性佳：

各種常見之酸、鹼等化學藥品，與原使用之PVC板具備相當之耐化學性，使用範圍廣。

註：各化學藥品若與界面活性劑溶液、或是不同藥品間摻混使用，會有相乘效果，建議客戶應事先確認再行使用。

### 3. 優異之加工性：

各項加工性，如熔接、黏著、熱彎曲等，都與原PVC板相當，客戶操作容易。

### 1. Superior Fire Resistance & Low Smoke Development Rate:

FM Global, an American mutual insurance company, has accredited Nan Ya FM plate in compliance with FM Approvals 4910: Cleanroom Materials Flammability Test Protocol. As a result, with superior fire resistance and low smoke development rate, Nan Ya FM plate is applicable to electronics industry and semiconductor industry.

### 2. Excellent Chemical Resistance:

Being resistant to chemicals like acid and alkaline, Nan Ya FM plate is available for a wide range of applications.

**Note:** Should the multiplier effect arise when chemicals are mixed with unformulated surfactant solutions or medicine, it is suggested that customers select proper chemicals before use.

### 3. Superb Processability:

The processability of Nan Ya FM plate, such as welding, adhesion, and thermal bending, is same as that of Nan Ya PVC plate. Therefore, it is easy and workable for customers to use Nan Ya FM plate.



FM認證南亞PVC板通過證書  
Certificate of FM Approvals



## 物性/ Physical Properties

檢驗項目 Item	試驗方法 Test Method	單位 Unit	檢驗結果 Value
比重 Specific gravity	ASTM D792	g/cm <sup>3</sup>	1.42
表面硬度 Hardness, Shore D	ASTM D2240	度	83
抗拉強度 Tensile strength	ASTM D638	kg/cm <sup>2</sup>	540
抗拉彈性率 Tensile modulus of elasticity	ASTM D638	kg/cm <sup>2</sup>	24000
伸長率 Elongation	ASTM D638	%	20
彎曲強度 Flexural strength	ASTM D790	kg/cm <sup>2</sup>	650
彎曲彈性率 Flexural modulus	ASTM D790	kg/cm <sup>2</sup>	26000
Izod 耐衝擊強度 IZOD Impact strength	ASTM D256	kg/cm <sup>2</sup>	3.0
軟化溫度 Softening temperature	CNS 3143	°C	66.0
熱變形溫度 Heating deflection temperature(264psi)	ASTM D648	°C	68.0
加熱收縮率 (MD 及 CD)130°C ×30min Dimensional change on heating(MD、CD)	JIS K7133	%	±4
線膨脹係數 (-30 ~ 30°C ) Coefficient of linear expansion	ASTM D696	× 10 <sup>-5</sup> /°C	6.9
熱傳導率 Thermal conductivity	ASTM C177	W/mk	3.3
表面阻抗 Surface resistance	ASTM D257	Ω/□	10 <sup>15</sup> ↓
體積固有阻抗 Volume resistance	ASTM D257	Ω.cm	10 <sup>14</sup> ↑
絕緣破壞電壓 Dielectric strength	JIS K6911	KV/mm	32
誘電率 Dielectric constant	ASTM D150	10 <sup>3</sup> MHz	3.4
吸水性 Water absorption	ASTM D570	%	0.02

註：以上數據為5mm實測參考值，不得作為品質保證之用。

Note: All data listed above is regarded as reference value (5mm), not for quality assurance.

## 產品規格/ Specifications

色水別 Color	厚度 Thickness (mm)	寬度 Width (mm)
不透明 Opaque	6~20	1000, 1220, 1510

## 注意事項/ Cautions

- 1.FM板材具備耐燃性，與一般PVC板略有不同，各項物性、耐化性，長期生產之使用性能，請客戶務必先行確認，若有疑問，並歡迎致電本公司進一步諮詢。
- 2.使用板材時，應先測試溫度、藥水以及對耐候性之需求，以選擇適當之等級。
- 3.各項物性表所列之數字，係樣品測試結果，不可作為保證之用。
- 4.板材平放時請採平面放置，不可斜放，避免變形。
- 5.加工後組件運送時，注意避免陽光直射，以維持安定。
- 6.與軟質PVC及其他可溶解PVC藥液接觸時，應注意對板材表面之影響。



電子業無塵室設備應用

Application of Cleanroom (for electronics industry use)

- 1.With superb fire resistance, Nan Ya FM plate is different from Nan Ya PVC plate because of its physical properties, chemical resistance, and performance of long-term production. If you have any questions, please do not hesitate to contact us.
- 2.When using Nan Ya FM plate, please make sure that it meets the requirements of temperature, chemicals, and weather resistance in order to select the appropriate grade of Nan Ya FM plate.
- 3.All values listed on physical properties table are regarded as test results of Nan Ya FM plate (sample), not for quality assurance.
- 4.To prevent Nan Ya FM plate from being out of shape, please keep it in a horizontal position instead of an oblique position.
- 5.When delivering processed Nan Ya FM plate, please protect it from direct sunlight to keep the product quality stable.
- 6.When Nan Ya FM plate touches soft PVC products or soluble PVC fluids, please be aware of any impacts on the surface of the product.



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