

#### 產品認證與許可

台塑公司聚縮醛廠為了提升品質，滿足客戶需求。從1994年即建立品質管理系統並通過國際標準組織ISO-9001認證。後續通過ISO 14001、OHSAS 18001等國際認證。我們的產品**台塑鋼® FORMOCON®**亦通過美UL (Underwriters Laboratories) 塑膠材料規格認定，並合乎食品級FDA (Food and Drugs Administrations) 之要求。此外，**台塑鋼® FORMOCON® FM090**已獲得NSF (National Sanitation Foundation) standard 61認證，適合應用於飲用水設備之零組件材料。下列各項認證資料，僅提供參考。若需更詳細資料或特殊符合性認證，請與本公司營業部門聯絡  
(電話：886-2-27122211 # 6137、6138、8157、8159)  
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#### CERTIFICATIONS AND APPROVALS

Since 1994, FPC has established quality management system and obtained ISO 9001 certification in order to improve the quality of POM and meet the requirements of our customers. Our management system also has been certified to other important international standard certifications such as ISO-14001:2004, OHSAS-18001 and so on.

Our product **FORMOCON®** are listed in UL (Underwriters Laboratories) of USA, and also comply with the regulations of FDA (Food and Drug Administration) **FORMOCON® FM090** is certified by NSF (National Sanitation Foundation), and comply with the requirements of NSF standard 61 for the drinking water system components.

Following is a list of certifications and approval for reference. For further or specific compliance information, please contact FPC sale department  
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#### ◎ MANAGEMENT SYSTEM APPROVALS

- ▲ ISO 9001  
(Quality Management System, 品質管理系統)
- ▲ ISO 14001  
(Environment Management System, 環境管理系統)
- ▲ OHSAS 18001  
(Occupational Safety and Health Management System, 職業安全衛生管理系統)
- ▲ SONY GREEN PARTNER

#### ◎ SAFETY & SANITARY APPROVALS

- ▲ UL (Underwriters Laboratories : USA)  
File No.:E173318
- ▲ CSA (Canadian Standard Associate : Canada)
- ▲ NSF (National Sanitation Foundation : USA)  
NSF61 (Drinking Water System Components)  
Customer No.: 8220, Plant No.: 82201 DCC: IA07897
- ▲ FDA (Food and Drugs Administrations : USA)
- ▲ WRAS (Water Regulations Advisory Scheme: UK)
- ▲ SVHC (SVHC Related by ECHA)
- ▲ RoHS (RoHS Directive 2011/65/EU ANNEX II)
- ▲ EN71 Part3
- ▲ W270 (DVGW Technical Standard : Germany)

**台塑鋼® FORMOCON®**  
共聚型聚甲醛樹脂 POLYOXYMETHYLENE (POM)  
*ACETAL COPOLYMER*



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IOS APP



Android APP



[http://www.fpc.com.tw/j21c/cus/pdt/Cclp01.do?dc\\_btn\\_0=Func\\_Detail&pdtxuid=510KTLPU5K8](http://www.fpc.com.tw/j21c/cus/pdt/Cclp01.do?dc_btn_0=Func_Detail&pdtxuid=510KTLPU5K8)



※本表數據為依上列檢驗方法測得之參考值，僅供客戶選擇品別用途之參考

Note: The details given in this data sheet are our standard value but not specification guaranteed.

| 項目<br>Properties   | 單位<br>Unit  | 檢驗方法<br>Test Method | 標準級 Standard Grades  |  |                                |  |  |  | 耐候性等級 Weather- Resistant Grades  |                               |                           |                        |                    |                            |
|--|---|---------------------|--|--|--------------------------------|--|--|--|--|-------------------------------|---------------------------|------------------------|--------------------|----------------------------|
|  |   |                     | FM025/<br>FM025E   | R6   | FM090                          | FM130  | FM270                                      | FM450  | FM025 UV   | R6 UV                         | FM090 UV                  | FM130 UV               | FM270 UV           | FM450 UV                   |
| 熔融指數 Melt Index  | g/10min   | ASTM D1238          | 2.5  | 6  | 9                              | 13   | 27   | 45   | 2.5  | 6                             | 9                         | 13                     | 27                 | 45                         |
| 比重 Specific Gravity  |   | ASTM D792           | 1.41   | 1.41   | 1.41                           | 1.41   | 1.41                                       | 1.41   | 1.41   | 1.41                          | 1.41                      | 1.41                   | 1.41               | 1.41                       |
| 硬度 Rockwell Hardness   | M刻度   | ASTM D785           | 78   | 80   | 80                             | 80   | 80   | 80   | 78   | 80                            | 80                        | 80                     | 80                 | 80                         |
| 抗折強度 Flexural Strength   | kgf/cm <sup>2</sup>                                     | ASTM D790           | 950  | 950  | 950                            | 950  | 950  | 950  | 950  | 950                           | 950                       | 950                    | 950                | 950                        |
| 抗折彈性係數 Flexural Modulus  | kgf/cm <sup>2</sup>                                     | ASTM D790           | 26000  | 26000  | 26000                          | 26000  | 26000                                      | 26000  | 26000  | 26000                         | 26000                     | 26000                  | 26000              | 26000                      |
| 拉伸強度 (降伏點)<br>Tensile Strength (at yield point)                                  | kgf/cm <sup>2</sup>                                     | ASTM D638           | 610  | 620  | 630                            | 630  | 620  | 620  | 610  | 620                           | 620                       | 620                    | 620                | 620                        |
| 延伸率(斷裂點)<br>Tensile Elongation (at break point)                                  | %   | ASTM D638           | 75   | 65   | 60                             | 55   | 45   | 35   | 75   | 65                            | 60                        | 55                     | 45                 | 35                         |
| 衝擊強度(凹側)<br>Izod impact Strength (V-notched)                                     | kgf*cm/cm   | ASTM D256           | 7.6  | 7.0  | 6.5                            | 6  | 5.4  | 4.5  | 7.6  | 7.0                           | 6.5                       | 6                      | 5.4                | 4.5                        |
| 吸水率 Water Absorption   | %   | ASTM D570           | 0.22   | 0.22   | 0.22                           | 0.22   | 0.22                                       | 0.22   | 0.22   | 0.22                          | 0.22                      | 0.22                   | 0.22               | 0.22                       |
| 阻燃性 Flammability   |   | UL94                | HB   | HB   | HB                             | HB   | HB   | HB   | HB   | HB                            | HB                        | HB                     | HB                 | HB                         |
| 成型收縮率 (3mm <sup>1</sup> , 4in圓盤)<br>Mold Shrinkage (3mm <sup>1</sup> , 4in disk) | %   |                     | 1.8-2.2  | 1.8-2.2  | 1.8-2.2                        | 1.8-2.2  | 1.8-2.2                                    | 1.8-2.2  | 1.8-2.2  | 1.8-2.2                       | 1.8-2.2                   | 1.8-2.2                | 1.8-2.2            | 1.8-2.2                    |
| 熱變形溫度<br>Heat Deflection<br>Temperature  | 18.6kgf/cm <sup>2</sup><br>4.6kgf/cm <sup>2</sup><br>°C | ASTM D648           | 110<br>158   | 110<br>158   | 110<br>158                     | 110<br>158   | 110<br>158                                 | 110<br>158   | 110<br>158   | 110<br>158                    | 110<br>158                | 110<br>158             | 110<br>158         | 110<br>158                 |
| 線膨脹係數<br>Linear Expansion Factor   | cm/cm°C<br>x10 <sup>-5</sup>                            | ASTM D696           | 8.45   | 8.45   | 8.45                           | 8.45   | 8.45                                       | 8.45   | 8.45   | 8.45                          | 8.45                      | 8.45                   | 8.45               | 8.45                       |
| 熔點 Melting Point   | °C  | ASTM DSC            | 165  | 165  | 165                            | 165  | 165  | 165  | 165  | 165                           | 165                       | 165                    | 165                | 165                        |
| VICAT軟化點 Vicat Softening Temp  | °C  | ASTM D1525          | 162  | 162  | 162                            | 162  | 162  | 162  | 162  | 162                           | 162                       | 162                    | 162                | 162                        |
| 體積電阻率 Volume Resistivity   | Ωcm   | ASTM D257           | 1x10 <sup>14</sup>   | 1x10 <sup>14</sup>                                 | 1x10 <sup>14</sup>             | 1x10 <sup>14</sup>   | 1x10 <sup>14</sup>                         | 1x10 <sup>14</sup>                                     | 1x10 <sup>14</sup>   | 1x10 <sup>14</sup>            | 1x10 <sup>14</sup>        | 1x10 <sup>14</sup>     | 1x10 <sup>14</sup> | 1x10 <sup>14</sup>         |
| 表面電阻率 Surface Resistivity  | Ω   | ASTM D257           | 1x10 <sup>16</sup>   | 1x10 <sup>16</sup>                                 | 1x10 <sup>16</sup>             | 1x10 <sup>16</sup>   | 1x10 <sup>16</sup>                         | 1x10 <sup>16</sup>                                     | 1x10 <sup>16</sup>   | 1x10 <sup>16</sup>            | 1x10 <sup>16</sup>        | 1x10 <sup>16</sup>     | 1x10 <sup>16</sup> | 1x10 <sup>16</sup>         |
| 介電常數 Dielectric Constant   | 50HZ<br>1KHZ<br>1MHZ                                    | ISO IEC250          | 3.8<br>3.8<br>3.8  | 3.8<br>3.8<br>3.8                                  | 3.8<br>3.8<br>3.8              | 3.8<br>3.8<br>3.8  | 3.8<br>3.8<br>3.8                          | 3.8<br>3.8<br>3.8                                      | 3.8<br>3.8<br>3.8  | 3.8<br>3.8<br>3.8             | 3.8<br>3.8<br>3.8         | 3.8<br>3.8<br>3.8      | 3.8<br>3.8<br>3.8  | 3.8<br>3.8<br>3.8          |
| 絕緣強度 (2mm)<br>Dielectric Breakdown Strength<br>(2mm)                             | KV/mm   | ASTM D149           | 24   | 24   | 24                             | 24   | 24   | 24   | 24   | 24                            | 24                        | 24                     | 24                 | 24                         |
| 特性 Features  |   |                     | 高黏度<br>High-<br>viscosity  | 標準增韌<br>Standard<br>toughness                      | 標準流動<br>Standard-<br>flow      | 中流動<br>Medium-<br>flow   | 高流動<br>High-flow                           | 超高流動<br>Superhigh-<br>flow                             | 高黏度<br>High-<br>viscosity  | 標準增韌<br>Standard<br>toughness | 標準流動<br>Standard-<br>flow | 中流動<br>Medium-<br>flow | 高流動<br>High-flow   | 超高流動<br>Superhigh-<br>flow |
| 用途 Applications  |   |                     | FM025 for Injection molding<br>FM025E for Extrusion and injection molding  | 韌性需求優於FM090<br>Used in higher toughness than FM090 | 一般射出用規格<br>For general molding | 流動性需求略高於FM090<br>Used in higher demand for fluidity than FM090 | 用於小尺寸產品<br>Used to produce the small parts | 用於小尺寸零件及薄製品<br>Used to produce the thin or small parts | 耐候級可應用於戶外製品，具有良好的耐候性質<br>Outdoor or other products requiring good weather- resistant properties. |                               |                           |                        |                    |                            |
|  |   |                     | 扣具 Buttons, 按扣 Press-in fasteners, 管件 Plumbing, 五金 Hardware, 家庭電器 Household appliances parts, 電子零件 Electronic parts, 汽車零件 Automotive, 齒輪 Gears, 軸承 Bearing, 拉鍊 Zippers |  |                                |  |  |  |  |                               |                           |                        |                    |                            |