# Principle Physical Properties of Acetal Copolymer

Grade			FM025	FM090	FM130	FM270	FM350	FM450
Property	Unit	ASTM						
MI Value	g/10min	D1238	2.5	9	13	27	35	45
Specific Gravity		D792	1.41	1.41	1.41	1.41	1.41	1,41
Rockwell Hardness	MScale	D785	78	80	80	80	80	80
ROCKWELL	RScale			115				
Flexural Strength	kgf/cm <sup>2</sup>	D790	950	950	950	950	950	950
Flexural Modulus	kgf/cm <sup>2</sup>		26000	26000	26000	26000	26000	26000
Tensile Strength at yield point	Kgf/cm <sup>2</sup>	D638	610	620	620	620	620	620
Tensile Elongation at break point	%		75	60	55	45	40	35
Compressive 1%Deformation	kgf/cm <sup>2</sup>	D695	320	320	320	320	320	320
Stress 10%Deformation			1100	1100	1100	1100	1100	1100
Izod Impact V-notched23°C Strength 50%RH	kgf/cm <sup>2</sup>	D256	7.6	6.5	6	5.4	5.1	4.5
Water 23°C Absorption (69%) RH	%	D570	0.22	0.22	0.22	0.22	0.22	0.22
Flammability (UL94)		UL94	НВ	НВ	НВ	НВ	НВ	НВ
Mold Shrinkage (3mm <sup>t</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
Heat Deflection 18.6kgf/cm <sup>2</sup>	°C	D648	110	110	110-	110	110	110
Temperature 4.6kgf/cm <sup>2</sup>	°C	D648	158	158	158	158	158	158
Linear Expansion Factor	Cm/cm°Cx10-5	D696	8.45	8.45	8.45	8.45	8.45	8.45
Melting Point	$^{\circ}$ C	DSC	165	165	165	165	165	165
Vicat Softing Temp.	$^{\circ}$ C	D1525	162	162	162	162	162	162
Volume Resistivity23°C50% RH	Ω.cm	D257	$1 \times 10^{14}$	$1 \times 10^{14}$	1x10 <sup>14</sup>	$1 \times 10^{14}$	$1 \times 10^{14}$	$1 \times 10^{14}$
Surface Resistivity23°C50%RH	Ω	D257	1x10 <sup>16</sup>	$1x10^{16}$	1x10 <sup>16</sup>	1x10 <sup>16</sup>	$1x10^{16}$	$1 \times 10^{16}$

NOTE: Above data are shown for reference only.

# Feature and Applications of Grades

Grade	Feature	Application
FM025	High-viscosity Extrusion, Minimal mold	Extruded rods and sheets, Other extrusion parts
FM090	Standard-flow Minimal mold	Buttons and press-in fasteners, Plumbing and hardware, Gears, Electronic parts, Automotive parts, Household appliances, Bearing, Other injection parts
FM130	Medium-flow Minimal mold	Buttons and press-in fasteners, Zippers, Plumbing and hardware, Gears, Bearing, Electronic parts, Automotive parts, Household appliances, Other injection parts
FM270	High-flow	Press-in fasteners, Zippers, Gears, Electronic parts,
FM350	Minimal mold	Automotive parts, Household appliances, Other small mechanical parts
FM450	Superhigh-flow	Press-in fasteners, Zippers, Gears, Electronic parts, Automotive parts, Household appliances, Other small mechanical parts.

## 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-9000認證。後續通過ISO 14001、OHSAS 18001等國際認證。

我們的產品台塑鋼FORMOCON 亦通過美國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 # 6094 \ 6095,傳真: 886-2-27137012)

### Management System Approvals

- ▲ ISO 9001:2000 ( Quality Management System, 品質管理系統)
- ▲ ISO 14001:1996 (Environment Management System, 環境管理系統)
- ▲ OHSAS 18001:1999 (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 )

## **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-14001:1996, 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 (Tel: 886-2-27122211 # 6094 \ 6095 \ Fax: 886-2-27137012)

### Management System Approvals

- ▲ ISO 9001:2000 (Quality Management System)
- ▲ ISO 14001:1996 (Environment Management System)
- ▲ OHSAS 18001:1999 (Occupational Safety and Health Management System)
- **▲ 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 Component)

  Customer no.: 8220, Plant no.: 82201 DCC: IA07897
- ▲ FDA ( Food and Drugs Administrations : USA )



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