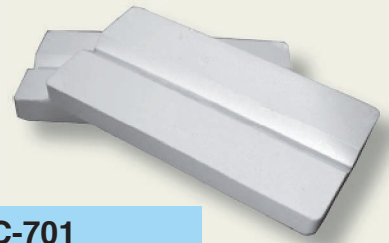


洗模劑 Mold Cleaner



1. MC-261、MC-701

洗模劑 MC-261、MC-701、係熱硬化樹脂，由三聚氰胺樹脂與有機、無機之填充劑配合而成，對於使用環氧樹脂成型材料做半導體，如二極體、電晶體、積體電路等封止成型時，殘留於模具上之污垢具有良好之清除效果，適合轉移成型，而且成型條件與環氧樹脂相同，作業方便，快速省力，效果良好。

一般性質

外觀：白色錠粒

錠粒密度：1.4-1.6 g/ml

流動性：70-140公分 (at 170°C, 70 kgf/cm²)

成型條件

高週波預熱：90-110°C 模具溫度：160-190°C

轉進壓力：30-100 kgf/cm² 轉進時間：20-30 秒

硬化時間：3-5 分鐘

使用方法

- (1) 洗模劑預熱後可改善流動性及清洗效果，預熱溫度 90-110°C。
- (2) 洗模劑係用模擬成型，操作程序與環氧樹脂成型材料完全相同。
- (3) 最適成型條件為模溫 175°C，成型時間約 3-5 分鐘，轉進壓力：30-100 kgf/cm²，硬化時間隨成型品厚度而定，硬化時間適當延長，清洗效果愈佳。
- (4) 檢查成型品及流道是否有充填未滿情形，如有則增加進料量或轉進壓力，變更成型條件等調整之。
- (5) 洗模次數依模具狀況而定，一般每次洗模約 5-8 模，但當模具相當髒時，則增加到 10-15 模或更多，將模具沾污徹底清除。
- (6) 使用洗模劑後，最好用離型劑再處理模具，再用 Air 把殘留的髒東西吹乾淨，並用環氧樹脂成型材料作 2-3 模之模擬成型，以免開始生產時發生離型困難。

包裝

洗模劑 MC-261、MC-701：內層用一層聚乙烯塑膠袋封裝，外層為瓦楞紙箱，每箱淨重 10 公斤。

儲存

- (1) 洗模劑是一種容易吸濕之物質，吸濕後影響作業性及清洗效果。故開封後，請儘快使用完畢，或重新包裝好，避免吸濕。
- (2) 洗模劑為熱硬化性樹脂，在高溫下影響流動性及清洗效果。
- (3) 最好將洗模劑存放在清涼乾燥、溫度不超過 30°C 之處，可保存六個月，10°C 以下可保存一年。

1. MC-261, MC-701

Mold-Cleaner, a thermosetting resin consisting of melamine formaldehyde resin, organic and inorganic fillers, is designed to clean mold stains deposited during molding process for encapsulation of semiconductors, such as interated circuits, transistors, and diodes ect. Cleaning can be accomplished by transfer molding MC-261, MC-701 at the same condition as that of epoxy molding compound. Users may also adjust the molding condition to obtain better effect.

Properties

- Appearance: White tablet
- Tablet density: 1.4-1.6 g/ml
- Sprial Flow: 70-140 cm (at 170°C, 70kgf/cm²)

Molding Condition

- Preheat Temperature: 90-110°C
- Mold Temperature: 160-190°C
- Transfer Pressure: 30-100 kgf/cm²
- Transfer Time: 20-30 sec
- Cure Time: 3-5 min

Procedure for Mold Cleaning

- (1) Preheat cleaner at 90-110°C. The tablet will become soften and give good flow properties.
- (2) Molding procedures are exactly the same as that of epoxy molding compound.
- (3) The optimum condition is set 175°C for 3-5 minutes. Curing time varies with the thickness of packaged items. Transfer pressure range from 30-100 kgf/cm² is suggested.
- (4) Inspect the shot to make sure that all cavities and runners were completely filled. In case of insufficient filling, use more material or increase transfer pressure up to the optimum.
- (5) The number of cleaning shots that required will vary depending upon the condition of the mold. The first 5 to 8 shots will usually suffice. If the mold surfaces are extremely dirty, as many as 10 to 15 shots may be needed to remove all the stains.
- (6) After cleaned with mold cleaner, lightly wax the cleaned mold surface with carnaba wax and blow off any excess with air blast then, 2 to 3 dummy shots of epoxy molding compound are recommended for better releasing property.

Package

MC-261, MC-701 is packed 10 kg net in a carton box with PE bag inside.

Storage

- (1) Mold Cleaner may absorb moisture when exposed to air, cleaning effect may subsequently be influenced. If the package is opened, seal tightly after purpose is over.
- (2) It is advisable to store cleaner in area where temperature is below 30°C.
- (3) If well kept at 30°C, cleaner can be stored for six months. If well kept at 10°C, cleaner can be stored for one year.

Tablet Weight

Conventional Size (MC-261, MC-701)		Mini Size (MC-701S)	
直徑 Diameter	重量 Weight	直徑 Diameter	重量 Weight
40mm	45g, 50g	13mm	2.0g-6.0g
48mm	66g, 75g	14mm	2.5g-7.0g
55mm	90g, 100g	16mm	3.0g-9.0g
		18mm	3.5g-11.5g

2. MC-201T (壓模成型)

MC-201T係由三聚氰胺樹脂(Melamine Resin)與一些有機填充劑所化而成之熱固性樹脂材(Thermosetting Resin)，由於其加壓可塑化的過程中，具有相當強的黏著效果。一般封裝廠常將之與MC-261/262/701搭配使用。對一些封止(Encapsulation)成型時，殘留於模具表面及排氣孔的污垢具有良好的清除效果。

一般特性

- 外觀：白色長方體方塊
- 規格：長73mm×寬38mm×高7mm
- 淨重：20±1g
- 含水量：5.5%以下（曝露於大氣中極易吸濕）
- 密度：0.98~1.08g/cm³
- 包裝：外包装為含浸熟蠟的防水箱，內包裝為PE袋，每5層MC-201T覆蓋一層PE氣泡布，以增強耐衝擊效果，防止運送途中MC-201T破損，每箱淨重10公斤。

操作條件

- 模溫：160-190°C
- 合模壓力：40-100kgf/cm²
- 硬化時間：200秒以下

由於一般電子廠模溫設定於175°C上下，模面大小及Cavity 深淺不一，以上成型條件僅供電子廠清模時使用MC-201T各批號間用量之參考依據。

使用方法及注意事項

- (1) 清模時將MC-201T排列於模面，合模加壓即可，亦可先覆蓋一層紗布於模面再排列MC-201T，由於MC-201T硬化時間較MC-261短且排列於模面後受熱即開始變化，因此廠商可嘗試將硬化時間縮短（約200sec甚至更短）。
- (2) MC-201T極易吸濕受潮，因此每次清模完畢，請將包裝袋立刻重新密封，以免產生變異。
- (3) 請將MC-201T儲存於清涼乾燥處，最好是具有空調設備的場所，溫度維持在30°C以下，並於六個月內使用完畢。

2. MC-201T(Compression Type)

"MC-201T," a thermosetting resin consisting of melamine formaldehyde resin, organic and inorganic fillers, can remove mold stains by directly placing it on the cavities and particle lines and be clamped by molding pressure without preheating. It will remove substances deposited on cavities, surface of mold, and particle lines out of the mold. If use with MC-261/262/701, it will have better mold cleaning efficiency.

Physical Properties

- Appearance: White rectangle
- Rectangular Size:
Length 73 mm × Width 38 mm × Height 7 mm
- Weight: 20g±1g
- Moisture: 5.5% max.
- Tablet Density: 0.98-1.08g/cm³
- Package: MC-201T is packed 10 kg in Waterproof paper box, because it is fragile, we use PE cloth to protect tablet in the box.

Molding Condition

- Mold Temperature: 160-190°C
- Mold pressure: 40-100kgf/cm²
- Cure Time: Below 200 sec.

Storage

MC-201T is very sensitivity to moisture, and has unfavourable effect once exposed to high temperature. MC-201T is stable for about 6 months at around 30°C under a aircondition room.