Adhesion Promoter for AR resist

For improving the adhesive strength of photo and e-beam resists

Product Brief 產品說明

增黏劑依成份及使用方式可分為下列產品:

AR 300-80 new (organic silicon compound)

HMDS (hexamethyldisilazane 六甲基二矽氮烷)

Ti Prime

目前我司供應以AR 300-80 new 為主

產品包裝:

✅ AR 300-80: 1 L /瓶

其它包裝可依客戶需求增加.

產品出貨:

✅ 2- 4 週。德國出貨。

❎ 1 週。國內庫存。（目前暫無國內庫存）

✏️ 價格詢問　✏️ 其它諮詢　📤 產品GHS標識

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Characterization 產品特性

- improvement of the adhesive strength of photo and e-beam resist films
  改善光阻及電子束微影阻劑與底才間的黏度.
- especially for surfaces with low adhesion properties, e.g., metal, SiO2, GaAs
  特別是低黏著度的材料,例如: 金屬, 二氧化矽, 砷化鎵等材料.
- AR 300-80 new: spin coating of a silicium organic solution = improved adhesion properties and simple, cheaper alternative to HMDS.
  AR 300-80為含矽的有機溶液. 相較於傳統的HMDS有製程容易, 整體成本低等優點.

Properties of adhesion promoter 增黏劑物性		
Properties	**AR Adhesion Promoter**	
	AR 300-80 new	HMDS
Density at 20°C (g/cm^3) 密度	0.971	0.774
Flash point (°C) 閃火點	7	14
Filtration 過濾規格(um)	0.2	0.2
Storage 6 months 儲存溫度(°C)	10 - 22	

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Processing information for AR 300-80 (new)

AR 300-80 new is applied by spin coating between 1000 and 6000 rpm. The film thickness can be adjusted by varying the spin speed to the optimum conditions of the respective process.
Higher spin speeds and thus thinner films are preferable, e.g. 4000 rpm with approx. 15 nm thickness. Too high concentrations (film thickness values) may reduce or neutralize the adhesion-promoting effect.
It is recommended for AR 300-80 new to perform the subsequent tempering on a hot plate for 2 min or in a convection oven for 25 min at 180 °C. AR 300-80 new offers the big advantage for sensitive substrates that a bake step at olny 60 °C for the same amount of time is sufficient, even though higher temperatures are well tolerated.

During tempering, a very uniform, extremely thin layer of adhesion promoter is generated on the substrate (approx. 15 nm). After cooling of the substrate, the resist can be applied as usual.
An excess of adhesion promoter may be rinsed off with organic solvents like e.g. AR 600-71. The optimised surface properties are maintained without restriction.

AR 300-80使用方法是以轉速介於1,000rpm到6,000rpm的旋轉塗布法. 膜厚可依轉速而調整. 較高的轉速可得較低的膜厚. 例如每分鐘4,000轉可得約15nm的膜厚. 膜厚太高可能影響增黏效果.
AR 300-80塗布後,建議軟考時間為2分鐘(熱板),或180°C烤箱25分鐘. 針對有些較敏感的基板, 其烘烤溫度僅能為60°C, AR 300-80在此製程條件下依然可達增黏效果. AR 300-80對溫度有較寬的製程容忍度.
經過烘烤後AR 300-80會在基板表面形成厚度一致,約15nm的薄膜. 基板經降溫冷卻後就可依製程進行阻劑塗布. 過厚的增黏劑可以AR 600-71清洗. 清洗後的表面仍可維持其增黏特性.