




Stopper Product Brief 產品說明

顯影抑制劑主要用於電子束微影或保護塗佈的顯影製程，可使顯影製程中斷，避免過度顯影或殘留顯影劑造成製程瑕疵。亦可於顯影劑中加入10-20%以降低顯影速率。

系列產品特性及運用如下表：

Properties	unit	AR stopper		
		AR 600-60	AR 600-61	X AR 600-60/1
Density at 20°C 密度	(g/cm ³)	0.785	0.964	0.703
Refractive index at 20°C 折射率		1.402	1.517	
Water content max. 最大含水量	%	0.1	20	
Non-volatiles max. 非揮發成份	%	0.002	0.002	
Flash point 閃火點	°C	12	105	13
Filtration 過濾規格	um	0.2		
Production status 生產排程		routine	on-demand	routine
Lead time 交期	週	2 – 4	--	2 – 4
Product packing 產品包裝	L/瓶	1	--	1
Storage 6 months 有效期6個月的儲存溫度	°C	10 - 22		
GHS label GHS標識		 <u>GHS標識</u>	 <u>GHS標識</u>	 <u>GHS標識</u>
Application 適用阻劑		EBL resist: AR 617 AR 6200 AR PMMA resist	Thick EBL resist AR-P 6510	Protective coat: AR-PC 5000/41

Information on stopper process 顯影抑制劑相關資訊:

The addition of stopper for approximately 30 s after development interrupts the development process and leads to a rapid rinsing of residual developer.

Due the processing regime however, constantly developer is transferred into the stopper bath. Already small amounts of the developer will affect the efficiency of the stopping process. It is thus highly recommended to constantly exchange the stopper or to use two stopper baths which are arranged consecutively.

If 10-20 % of stopper AR 600-60 is added to developers AR 600-50, 600-55 and 600-56, the development process is slowed down.

If the stopper AR 600-60 is used for developers AR-P 630-670, higher contrast values up to 10 are possible, while the sensitivity of the PMMA resists is at the same time decreased. Higher exposure doses and prolonged development times are thus required in this case.

加入抑制劑約30秒後, 會中斷顯影且導致快速增加的顯影液殘留.

規律的製程會使顯影液不斷的被帶入抑制槽, 少量的顯影液就會降低抑制效果. 建議經常性的更換槽液, 或者使用雙抑制槽的設計.

在AR 600-50, AR 600-55及AR 600-56等顯影液加入20%的AR 600-60 stopper可降低顯影速率.

AR 600-60 stopper用於AR-P 630-670 PMMA EBL resist, 可使對比提高到10;但同時也會降低敏感度. 這種情況下,建議提高曝光劑量及延長顯影時間.