

《Electrification Dissipating Material》

ESPACER



● Characteristics

- ESPACER is used as a film for Electrification Dissipating Material which contains the original conducting polymer developed by Showa Denko K.K.
- The thin film of ESPACER has a high conductivity; therefore it solves the problem about the positional error on the electron-beam (EB) lithography process.
- There are two series of ESPACER ; one is ESPACER 100 series, and the another is ESPACER 300 series.
- ESPACER is an aqueous solution without any organic solvent.

#100: It's an acidic solution and used for non-chemical amplified resists.

#300: It's a weak acidic solution and applicable for the both type of resist; chemical amplified resists and non-chemical amplified resists.

● ESPACER300 series

- ESPACER 300 and ESPACER 300Z have a good performance for non-chemical amplified resists.
- ESPACER 300N series have a good performance for chemical amplified resists.

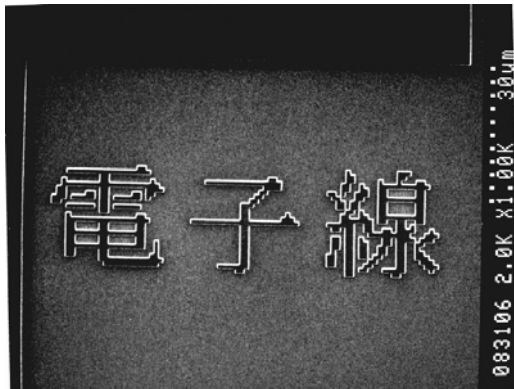
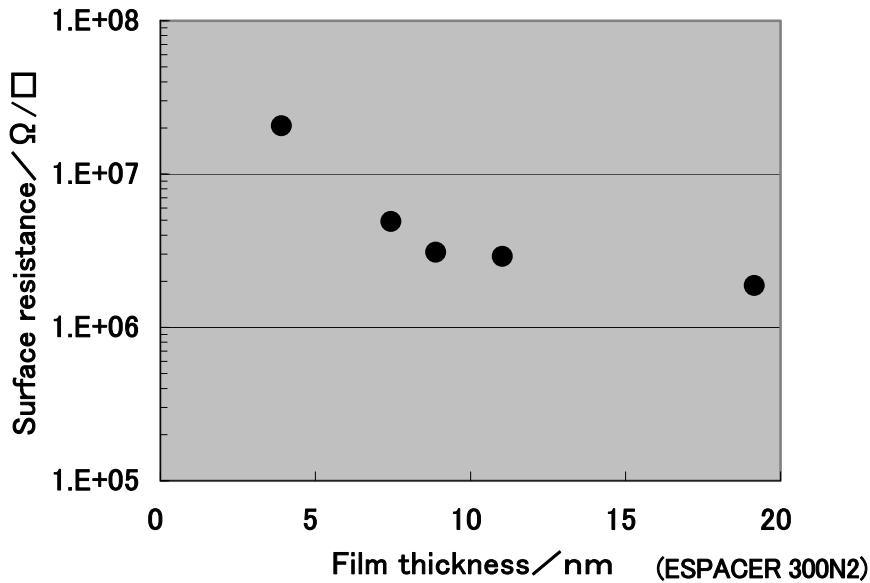
★ ESPACER: Correspondence to Resists

ESPACER 300	Positive Resist				Negative Resist			
	ZEP520 ZEP7000	Resists based On PMMA	OEBR CAP009	JSR CAR	SAL601	NEB22	OEBR CAN014	
Original	○	○	No Data		Not Applicable		No Data	
300Z	◎	◎	No Data		○		No Data	
300N series	300N2	No Data	No Data	◎	○	No Data	◎	
	300N3			No Data	No Data		○	No Data
	300N4			△	○		○	○

◎ : Recommended Grade ○ : Applicable Grade △ : due to Process Conditions

《Relationship between Surface Resistance and Film thickness》

- ESPACER has sufficiently an effect on Electrification Dissipating such as less than 10nm.



With ESPACER
Charging Phenomenon on the EB Lithography Process



Without ESPACER

※ For further information, please contact us.

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※They should not be regarded as guaranteed values.

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