PI Data sheet

TN-PI performance

Model		PI-200	PI-300B	PI-600	
Characteristic		Middle temperature solidification (250°C, 1~1.5hr)	Middle temperature solidification (240°C, 1~1.5hr)	Middle temperature solidification (250°C, 1~1.5hr)	
		Free of marinated coupling agent, powerful adhesion to glass, improved the stability of LCD directional film.			
		The humidity should be less than 60% and at indoor temperature during printing.			
		Perfect transparency	Perfect transparency	Higher transparency	
	Solid content	8.0-13.0%	7.0-10.0%	7.0-10.0%	
Liquid	Viscosity	10-30dpa.s	7-30dpa.s	10-40dpa.s	
Properties	Solvent	DMA, NMP, B.C etc			
	Appearance	cream to yellow	cream to yellow	cream	
	Na+	less than 1ppm			
Film Properties	Decomposition temperature	500°C(in N ₂)			
	Dielectric constant	3.4~3.8 (1KHz)			
	Volume resistivity	>4x10 ¹⁵ Ω .cm			
	Visible transmission	>90%(10um)			
	Water absorption	0.8%(temperarure 60°C, humidity 95%, 48hr)			
	Refractive index	1.70			
	Dielectric strength	170V/um			
	Pretilt angle	1~2°			
Storage stability		Store in refrigerator at below -10°C. Shelf life is at least 6 months.			
Dilution		 Defreezind at indoor temperature at fist free of water absorption; Generally diluted with NMP, DMA, and BC etc, and filtered solvent is better before application. 			

	Ambient moisture	40~60%RH			
Coating conditions	coating	Generally thickness of 400~600A directional film for TN LCD			
	Spin coating	Solid diluted to 1.5~3‰, filtered during reducing pressure, coating speed 2000~3000rpm	Solid diluted to 1.5~3‰, filtered during reducing pressure, coating speed 2000~3000rpm	Solid diluted to 1.7~3.3‰, filtered during reducing pressure, coating speed 2000~3000rpm	
	Flexiso printing	Solid content 2.5~4.0%, filtered during reducing pressure, printing	Solid content 2.5~4.0%, filtered during reducing pressure, printing	Solid content 2.8~4.4%, filtered during reducing pressure, printing	
	Standard	Pre-curing : 80~110°C	Pre-curing : 80~110°C	Pre-curing : 80~110°C	
	curing	40~120s	40~120s	40~120s	
	condition	Curing: 250°C 1~1.5hr	Curing: 240°C 1~1.5hr	Curing: 250°C 1~1.5hr	
	Friction	Rotatory rubbing is recommendable.			
Rubbing condition		 Gloves and mask should be worn, free of contacting solvent; Keeping ventilation for coating and curing section; Keeping far away fire, water and CO₂ for fire fighting; If the solvent was touched to skin, rinsed by fresh water immediately; and Keeping rinsed over 10 minutes for it in eyes, and see doctor. 			
Note:		The above is on the base of our approved test, only for reference.			

STN-PI performance

Model		PI-2000A	PI-2046	
Characteristic		Middle temperature solidification (220-250°C,1~1.5hr)	Low temperature solidification (220-250°C, 1~1.5hr)	
		Free of marinated coupling agent, powerful adhesion to glass, improved the stability of LCD directional film.		
		The humidity should be less than 60% and at indoor temperature during printing.		
		Perfect transparency Perfect transparency		
Liquid Properties	Solid content	6.0%	6.0%	
	Viscosity	60-80cp	60-80cp	
	Solvent	DMA, NMP, BC etc		
	Appearance	brown brown		
	Na+	less than 1ppm		
Film Properties	Decomposition temperature	450°C(in N ₂)	440°C(in N_2)	
	Dielectric constant	3.0 (23°C,1KHz)		
	Volume resistivity	>5x10 ¹⁵ Ω .cm		
	Visible transmission	>90%(10um)		
	Water absorption	<0.8%(temperarure 60°C, humidity 95%, 48hr)		
	Refractive index	1.67		
	Dielectric strength	180V/µm		
	Pretilt angle	3-4°	5-6°	
Storage stability		Store in refrigerator at below -10°C. Shelf life is at least 6 months.		
Dilution		 Defreezind at indoor temperature at fist free of water absorption; Generally diluted with NMP, DMA, and BC etc, and filtered solvent is better before application. 		
0	Ambient moisture	40~60%RH		
conditions	coating		1	
	Spin coating	Solid diluted to 1.5~3‰, filtered during reducing pressure, coating speed	Solid diluted to 1.5~3‰, filtered during reducing pressure, coating speed	

		2000~3000rpm	2000~3000rpm	
	Flexiso printing	Solid content 2.5~4.0%, filtered during reducing pressure, printing	Solid content 2.5~4.0%, filtered during reducing pressure, printing	
	Standard curing condition	Pre-curing : 80~110°C 40~120s Curing: 250°C 1~1.5hr	Pre-curing: 80~110°C 40~120s Curing: 240°C 1~1.5hr	
	Friction	Rotatory rubbing is recommendable.		
Rubbing condition		 Gloves and mask should be worn, free of contacting solvent; Keeping ventilation for coating and curing section; Keeping far away fire, water and CO₂ for fire fighting; If the solvent was touched to skin, rinsed by fresh water immediately; and Keeping rinsed over 10 minutes for it in eyes, and see doctor. 		
Note:		The above is on the base of our approved test, only for reference.		

