

**ACF Anisotropic Conductive Film**  
**3T Frontiers Pte Ltd**

**Standard Specifications**  
**ACF for PCB**

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Items		Unit	PCB-1	PCB-2	PCB-3	Remarks	
Standard Specification	Thickness	μm	37	35	35	Customer option	
	Width	mm	1.5, 2.0	1.5, 2.0	1.0 ~ 3.0	Customer option	
	Length	m	100, 200	50, 100, 200	50, 100, 200	Customer option	
	No. of layer	-	1 layer	1 layer	1 layer		
	Release Film	Type	-	White PET	Matt PET	White PET	
		Thickness	μm	75(±7.5), 50(±5.0)	50(±5.0)	50(±5.0)	
	Conductive Filler	Type	-	Ni	Ni	Ni	
		Diameter	μm	3	5	5	
		Density	pcs/mm <sup>2</sup>	10,000	10,000	10,000	
	Min. insulation Space		μm	50	20	50	
Min. Contact area		μm <sup>2</sup>	60,000	30,000	40,000	Avg-3σ ≥5	
Bonding Conditions	Pre-bonding	Temperature	°C	70 ± 10	70 ± 10	60 ± 10	Ultimate Temp of ACF
		Time	sec	1 ~ 2	1 ~ 3	0.5 ~ 3	
		Pressure	Mpa	1 ~ 2	1 ~ 2	0.5 ~ 2	
	Final bonding	Temperature	°C	130 ~ 190	130 ~ 200	140 ~ 200	Ultimate Temp of ACF
		Time	sec	4 ~ 10	4	≥ 4	
		Pressure	MPa	2 ~ 5	2.5 ~ 5.0	2.5 ~ 5.0	
Shelf Life	Before open	Month	6	6	6	-5°C ~ 5°C	
	After open	Week	1	2	1	25°C, 75%RH or below	
Characteristics	Connection Resistance		Ω	< 2.0	< 1	< 1	4-point method
	Insulation Resistance		Ω	> 10 <sup>8</sup>	> 10 <sup>9</sup>	> 10 <sup>9</sup>	2-point method
	Adhesion Strength (at 25C)		gf/cm	> 500	> 1000	> 700	90° Peel strength 50mm/min
	Acceptable Reaction Rate		%	> 70	> 75	> 75	by FT-IR method

Remarks : All specifications are subjected to changes without prior notice.