

## The Materials of ACF in Eternal 2014

Eternal ACF Items		EF90225	AF91218	AF70525	AF70625	AF50935
Application		Glass Sensor (GG)	Glass Sensor (OGS)	Film Sensor (GFF, GF2)	Film Sensor (GFF)	PWB (COF)
Connection	Material (Metal)	ITO Glass (Ag) / FPC (Cu)	ITO Glass (Mo) / FPC (Cu)	ITO Film (Cu) / FPC (Cu)	ITO Film (Ag), Metal Mesh (Cu, Ag) / FPC (Cu)	PWB (Cu) / FPC (Cu, Sn)
Minimum Space	μm	50	50	50	100	100
Minimum Connection Area	μm <sup>2</sup>	60,000	60,000	60,000	200,000	100,000
Type of Resin	Adhesive	Epoxy Resin	Acrylic Resin	Acrylic Resin	Acrylic Resin	Acrylic Resin
Width of ACF	mm	1.2, 1.5, 2.0	1.2, 1.5, 2.0	1.2, 1.5, 2.0	1.2, 1.5, 2.0	1.5, 2.0
Length of ACF	m	100	100	100	100	100
Thickness of ACF	μm	25	18	25	25	35
Conductive Balls Size & Type	μm	10	10	10	20	5
	Polymer balls	Ni/Au-plated	Ni/Au-plated	Ni/Au-plated	Ni/Au-plated	Ni-plated
Particle Density	Pcs/mm <sup>2</sup>	500	500	800	200	2,500
Prebonding Condition	Temp (°C)	60-80	60-80	60-80	60-80	60-80
	Pressure (Mpa)	0.3-1.0	0.3-1.0	0.3-1.0	0.3-1.0	0.3-1.0
	Time (Sec)	1~3	1~3	1~3	1~3	1~3
Main Bonding Condition	Temp (°C)	185~195	120~160	130~150	130~150	145~185
	Pressure (Mpa)	1.5-2.5	1.5~2.5	1.5~2.5	0.5~3	3.0~4.0
	Time (Sec)	10~15	5~10	10~15	10~15	4~8
Peel Strength	N/cm	> 6	> 6	> 6	> 6	> 6
Resistance	Ohm	< 5	< 5	< 5	< 5	< 2