

Heat-Resistance Halogen-Free FPC Materials / Flexible Copper Clad Laminate (FCCL)

2Layer type High Tg FCCL[TLF-510] / 3Layer type Standard FCCL [TLF-530]

Features and Benefits

- Excellent Flexibility and Insulation Reliability
- We can Produce FCCL used 5um Copper Foil which Suitable to Fine Pitch Patterning
- Excellent Performance for heat-resistance, reliability, equal to 2 layer.(TLF-510)
- Good Processability equal to Standard 3Layer. (TLF-530)
- Suitable to Build-up use due to little deterioration in heat cycle.

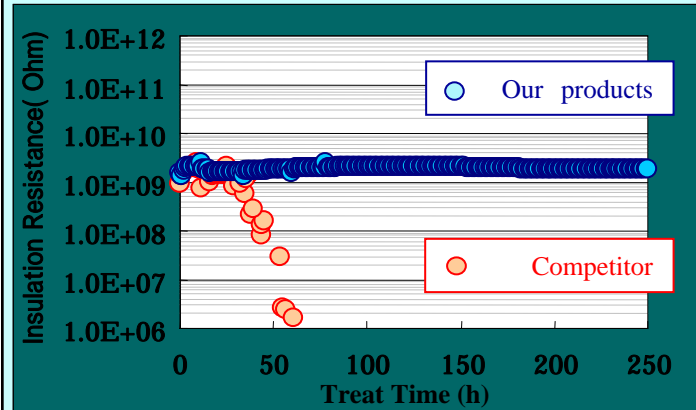
Applications

- Multi-Layer FPC and Flex-Rigid for Cellular Phone and Digital Still Camera.
- Heat Resistance Type Bonding Sheet Using COF for Flat Panel Display.
- Green Material

General Property

| Item | Condition | Unit | TLF-510GR-18/25 | TLF-530HR-18/25 | Test Method | |
|----------------------------|-------------|-------|-----------------|-----------------|-------------|------------|
| Thickness | - | um | 18/12/25 | 18/10/25 | Micro Meter | |
| Dimension Stability | MD | % | -0.07 | -0.09 | JIS C 6471 | |
| | TD | | | | | |
| Folding Endurance (0.8mmR) | MD | Cycle | 305 | 1132 | JIS C 6471 | |
| | TD | | 427 | 945 | | |
| Heat Resistance | 260C 60sec. | - | OK | OK | JIS C 6471 | |
| | 320C 60sec. | | OK | OK | | |
| Peel Strength | 1mm | kN/m | Initial | 1.05 | 0.98 | JIS C 6471 |
| | | | 260C 20sec. | 1.00 | 0.98 | |
| | | | MEK Dip 7min. | 1.05 | 0.98 | |
| Flammability | E-168/70 | - | VTM-0 | VTM-0 | UL94 | |

Test Result of Migration Resistance



Sample
 FCCL(S)+Coverlay
 CCL=TLF-530HR 18/25
 CL=TFA-560 2525
 L/S=75/75

Pre Treatment
 C-96/30/85
 Reflow(250C)
 2cycle

Condition
 85C/85%RH
 DC=50V
 Continuous measurement

Product Name

ex. TLF-W-530 HR 18/25/18
 Product Name Class Thickness

[Product Name]
 Single Side; TLF-, Double side; TLF-W-Standard ; 530 High Tg ; 510

[Class]
 HR, GR, GRT; RA Copper Foil
 FH, MW, MH, MWT; ED Copper Foil

[Thickness]
 Copper foil/Film/Copper foil