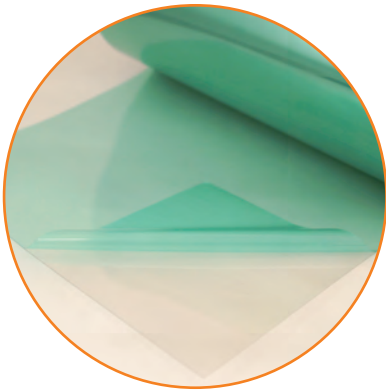


# Transparent Conductive Film

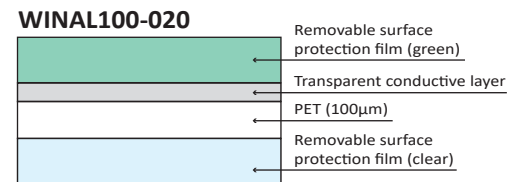
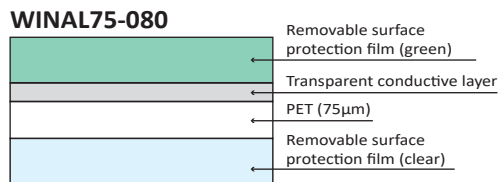
## WINAL Series



Excellent EMI shielding around  
LCDs and other apertures

- Low surface electric resistance gives higher shielding effectiveness
- Electrically conductive film with superior optical transparency
- Custom sheet cutting, punching, adhesive tape attachment etc. available upon request

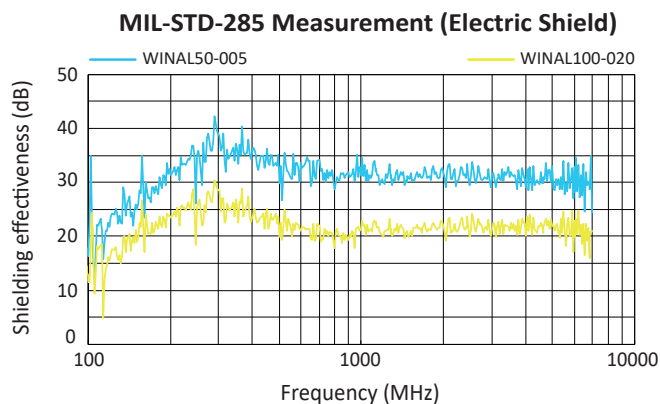
### Cross-section view



### Specification

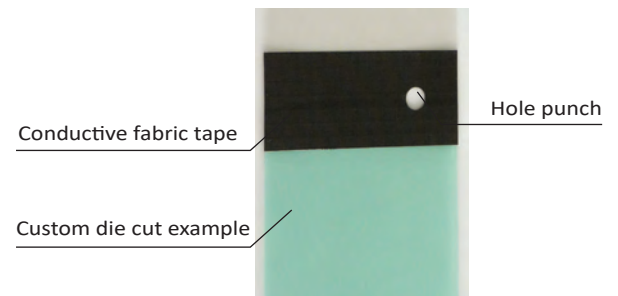
| Part Number                               | WINAL75-080      | WINAL100-020     |
|-------------------------------------------|------------------|------------------|
| Thickness (μm)                            | 75               | 100              |
| Shielding Effectiveness (db/1GHz)         | 10               | 22               |
| Total Light Transmittance (%) *JIS K 7136 | 76               | 76               |
| Surface Resistance (Ω/□) *JIS K 7194      | 80               | 20               |
| Flame Resistance *UL94                    | VTM-2 equivalent | VTM-2 equivalent |
| Operating Temperature (°C)                | -30 - 80         | -30 - 80         |
| *Test method                              |                  |                  |

### Characteristics



### Custom liner options

- Addition of conductive fabric tape layer
- Custom die cutting
- Hole punching



Please request for detailed product specification data prior to purchase



**KITAGAWA INDUSTRIES America, Inc.**

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Transparent Conductive Film\_WINAL Series\_REV2\_08102026