



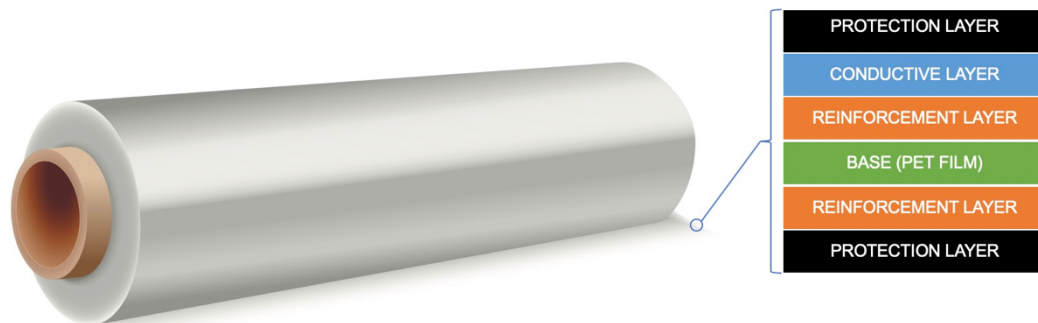
## Technical Data Sheet

### ACS Material Transparent Conductive Film (Graphene and Silver Nanowire Composite)

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## 1. Transparent Conductive Film Structure



## 2. Characterizations

	Characterizations		Properties	Unit	Notes
Physical Property	Base Material (PET)		125±2	µm	Micrometer
	Sheet Resistance		30±3	Ω/sq	4-Point Probe
	Haze		1.8±0.2	%	Photoelectric Haze Meter
	Transmittance		> 88.9		
	CIELAB Color Space	L*	> 86	%	Chromatometer
		a*	> 0.5		
		b*	< 3.0		
Resistance Uniformity	TD	< 10	%	VICTOR VC890C+	
	MD				
Durability Properties	Thermal Stability	150°C/60min	< 10	%	Electric drying oven with forced convection
		100°C/240h			
	Damp Heat Test	85°C/85%Rh; 240h	< 10		Programmable temperature and humidity tester
	Damp Heat Test with Electric Current Bias	5V/2.5mA; 85°C/85%Rh; 240h			
UV Ageing Test	2W/m <sup>2</sup> ; 240h	< 10	UV accelerated weathering tester		
Solvent Rub Test	Water		> 100	times	Cotton swab wiping method; Resistance change <10%
	Ethanol				
	Acetone				

Note: TD – Transverse Direction; MD – Machine Direction

### 3. Application Fields

- Flexible displays
- Wearable devices
- Touch screens/devices
- Transparent electrodes
- Transportation electronics
- Interactive Display and signage
- Solar Cells, etc

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