

# Ablefilm ECF550X

Epoxy; Epoxide  
Henkel Ablestik

## Message:

ABLEFILM® ECF550X silver filled, epoxy adhesive film is designed for microelectronic applications which require electrical conductivity. This material exhibits conductivity in the x, y, and z axes.  
When used for substrate attach, ECF550X acts as an electrical ground plane. It provides RF/EMI shielding.

General Information			
Filler / Reinforcement	Silver		
Features	Electrically Conductive		
	Good Electrical Properties		
Uses	Adhesives		
	Electrical/Electronic Applications		
	Film		
Appearance	Grey		
Forms	Pellets		
Physical	Nominal Value		Test Method
pH	4.5		Internal Method
Electrical Resistivity <sup>1</sup>	0.00200	ohms/in <sup>2</sup>	
Carrier	Glass Fabric		
Ionic Chloride (100°C) <sup>2</sup>	35	ppm	Internal Method
Ionic Potassium (100°C) <sup>3</sup>	5	ppm	
Ionic Sodium (100°C) <sup>4</sup>	15	ppm	Internal Method
Lap Shear			Internal Method
Al to Al : 25°C	15.2	MPa	
Au to Au : 25°C	14.5	MPa	
Water Extract Conductivity <sup>5</sup>	25.0	µS/cm	Internal Method
Weight Loss on Heating (300°C) <sup>6</sup>	0.20	%	Internal Method
Work Life (25°C) <sup>7</sup>	3.0	day	Internal Method
Thermal	Nominal Value	Unit	Test Method
Glass Transition Temperature	109	°C	Internal Method
CLTE - Flow			Internal Method
< 109°C	4.0E-5	cm/cm/°C	
> 109°C	5.0E-5	cm/cm/°C	
Thermal Conductivity <sup>8</sup> (121°C)	2.1	W/m/K	Internal Method
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity <sup>9</sup>	8.0E-3	ohms · cm	Internal Method
Thermoset	Nominal Value	Unit	Test Method

Pot Life (23°C)	4300	min
Shelf Life (-40°C)	52	wk
Demold Time		
125°C	120	min
150°C	60	min
Post Cure Time		
52°C	2.0	hr
66°C	1.0	hr

#### NOTE

1. Measured through Gold Joints
2. Teflon fl ask, 5 gm sample/20-40 mesh, 50 gm DI water, 24 hours
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5. Conductometer
6. Thermogravimetric Analysis
7. 25% increase in viscosity @ RT
8. C-MATIC conductance tester
9. 4-point probe

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#### Recommended distributors for this material

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