

Heat Resistance Test (130–190°C) for LEC-21 (Conductive LIFELL™ Sheet) Tray



Front



Side

Test Tray Before Heat
Resistance Test



Tray

Metallic mesh
inside the gear
oven

Tray placement

1. Test Conditions

- (1) Test date: October 12, 2012
- (2) Test temperatures: 130°C, 140°C, 150°C, 160°C, 165°C, 180°C, 190°C
- (3) Test durations: 1 hour: 130°C, 140°C; 30 minutes: 150°C, 160°C;
10 minutes: 165°C, 180°C, 190°C
- (4) No load
- (5) Test results: up to 150°C, no signs of melting or deformation
At 160°C, deformation appears due to tray weight
At 165°C, starts to collapse
At 180°C and 190°C, original shape is lost
- (6) Specimen: LEC-21 (conductive LIFELL™ Sheet) tray with thickness of 0.8 mm

Note 1: No load was applied during this test. The usable temperature range varies depending on load and heating method. Be sure to apply your evaluation criteria before using the product. The above data represents experimental results and does not guarantee specific performance levels under actual usage.

Note 2: LIFELL™ is a registered trademark of Zeon Corporation.

Heat Resistance Test Results (Specimen Placed in Oven for Some Time and then Removed and Photographed)

Room temperature
(before test)



130°C, 1 hour
(no melting, no deformation)



140°C, 1 hour
(no melting, no deformation)



150°C, 1 hour
(no melting, no deformation)



160°C, 1 hour
(no melting, deformation appears
at the bottom)



Deformed

165°C, 30 minutes
(melted, deformed)



180°C, 10 minutes
(melted and slightly deformed, original shape is lost, imprinted with metallic mesh marks, precipitation of inorganic components is not visible)



190°C, 10 minutes
(melted and heavily deformed, original shape is lost, clearly imprinted with metallic mesh marks, precipitation of inorganic components is not visible)



Specimen became further deformed further when stripped of the metallic mesh. The same conditions occurred in the 180°C test before it was stripped of the metallic mesh.