

TG4040 Putty Reliability Testing Report

1. RA test

Procedure

Tested for thermal resistance using a ASTM D5470 at different condition (room temperature, aging 125 °C, HAST and thermal shock).

1.1 Room temperature @ 25°C

1.2 Thermal Aging @ 80°C (200 hrs, 400 hrs, 700 hrs, 1000 hrs)

1.3 Thermal Aging @ 150°C (200 hrs, 400 hrs, 700 hrs, 1000 hrs)

1.4 Thermal HAST @ 85°C/85%RH (200 hrs, 400 hrs, 700 hrs, 1000 hrs)

1.5 Thermal Cycling @ -40°C to 120°C for 500 cycles (100 cycles, 200 cycles, 300 cycles, 400 cycles, 500 cycles)

During testing and aging, the samples were maintained between two round aluminum disks of one square inch in surface area.

During Aging, clamps were used to hold a constant pressure on the sample.

Results

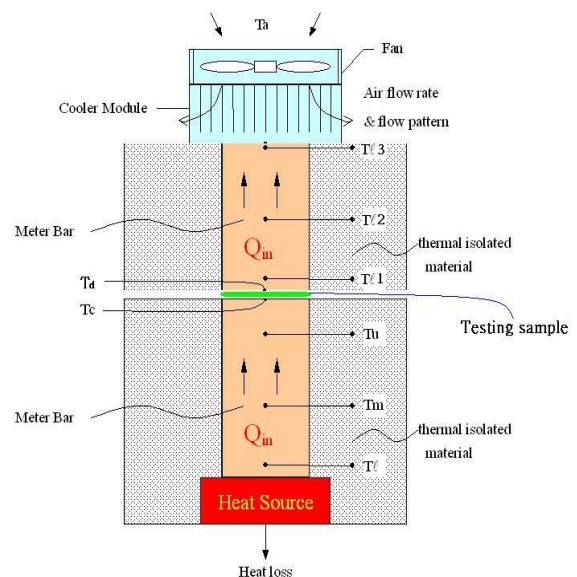
Code/(Unit : °C-in ² /W)	0 hr	200 hrs	400 hrs	700 hrs	1000 hrs
Room temperature	0.117	-	-	-	-
Thermal Aging@80°C	0.117	0.118	0.118	0.120	0.121
Thermal Aging@150°C	0.117	0.119	0.121	0.124	0.127
Thermal HAST	0.117	0.120	0.124	0.125	0.123

Code/(Unit : °C-in ² /W)	100 cycles	200 cycles	300 cycles	400 cycles	500 cycles
Thermal Cycling	0.118	0.118	0.120	0.119	0.121

Test method : ASTM D5470

Heat power : 30W

Specimen Area: 1 inch²



Note:

The data for design engineer guidance only. Observed performance varies in application.

Engineers are reminded to test the material in application.