

Touch Panel Temperature Test

Due to the industrial usage of faytech's touch devices, the constant use in either outdoor or indoor environments with a wide range of varying temperatures and humidity ranges. This is why the touch panels of faytech should pass the industrial standard required, which is a temperature of 85°C and a humidity of 85% RH.

Test Conditions

A total of two different tests have been conducted to evaluate the temperature and humidity. The first test involved the touch panel being boiled in 100°C for several hours, also known as **the poach test**. Thesecond test involved long term exposure to temperature of 95°C and humidity of 95% for a total of 72 hours, known as **the constant temperature & humidity test**. The tests have been conducted according to the following international industrial standards, as noted in the tables below.

Test Item	Test Condition
Poach Test	Industrial Standard
Constant Temperature & Humidity Test	IEC60068-2-78-2012

Poach Test Conditions	
Temperature	100°C
Humidity	100% RH
Duration	4 Hours
Measurement intervals	1H, 2H, 3H, 4H
Check	Rx channels resistance

Constant Temperature & Humidity Test Conditions	
Temperature	95°C
Humidity	95% RH
Duration	72 Hours (3 days)
Measurement intervals	24H, 48H, 72H
Check	Adhesion test / visual inspection
Container	Chamber: WTH-1000-70

Test Results

The poach test results are within acceptable ranges. The panel shows no resistance damage and the silver paste shows no changes either. The results regarding the rx channels resistance shows a maximum of 1500 after 4H of testing, while the acceptable maximum is 5000Ω. The touch panels still functioned as normal without any problems.

The Constant Temperature & Humidity test also passed without any problems. The adhesion test showed no oil adhesive on the tape when ripped of quickly. Besides this, at the interval inspections it showed no bubbles or delamination and functioned as normal without any problems.