

Chemical Solvents Endurance

faytech's touch devices are widely used in industrial, medical and automotive applications. Within these tough environments there is often a chance that the device gets exposed to certain chemicals. Besides the chemical uses within these environment, chemicals are also used in order to clean these devices, thus exposing them to these substances.

Several devices manufactured by faytech have been tested to check the behavior and results on chemical substances. The parts exposed to these substances are the following:

- Cover Glass (glare & anti-glare)
- Rubber Frame
- Case
- Cooling fin

Test Conditions

Several of faytech's monitors and PCs were exposed to chemicals in two different tests. One test focused on the durability of the device under friction and pressure using chemicals in **the friction test**, while the other focused on long-term exposure to chemicals in **the storage test**. The tests have been conducted according to the following international industrial standards, as noted in the tables below.

Test Item	Test Condition
Friction & immerse in cleaning solvent	IEC60068-2-45

Friction Test Conditions		
Temperature	23 ± 5°C	
Immersing area in solvent	5 seconds	
Using solvent dipped wiper on surface	Amount	200 times
	Pressure force	5 ± 0.5N
	Rubbing area	≥ 1cm²
Repeated	Once per day, 14 days in total	
Check	Visual inspection	

Storage Test Conditions	
Temperature	23 ± 5°C
Humidity	10% ~ 90% RH
Duration	336 Hours (14 days)
Measurement intervals	24H, 96H, 168H, 336H
Container	Opened container

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Chemicals Tested

The parts of the faytech devices were exposed to a total of 15 chemicals. These chemicals were selected in accordance with the IEC60068-2-45 test conditions. The chemicals have been tested on several parts of the faytech devices, as explained previously. Below is the table of chemicals which have been tested accordingly, with the judgements for each chemical.

No.	Chemical Test	Friction Test	Storage Test (336H)
1	Gasoline	Pass	Pass
2	Diesel	Pass	Pass
3	Motor oil	Pass	Pass
4	Red Loctite	Pass	Pass
5	Super glue	Pass	Pass
6	MEK	Pass	Pass
7	Ethanol	Pass	Pass
8	Acetone	Pass	Pass
9	Oil base furniture cleaner	Pass	Pass
10	Kerosene	Pass	Pass
11	Bleach	Pass	Pass
12	Engine degreaser	Pass	Pass
13	Paint thinner	Pass	Pass
14	Ammonium chloride	Pass	Pass
15	Alcohol	Pass	Pass

Test Results

The touch device parts of faytech's monitors and PCs can withstand all 15 types of solvent tested. After the 14 days (336 hours) of testing none of the samples surface showed any cracks, color changes, surface degradation or similar damages.

The functionality of the complete devices in question function as normal after the tests conducted, even when powered on and being used. This test concludes that faytech's products are able to survive common cleaners and chemical substances and thus comply with the International Industrial Standard IEC60068-2-45.