HOW TO CLEAN COATING FRAMES FROM SILICONE

CONFORMAL COATING – SILICONE

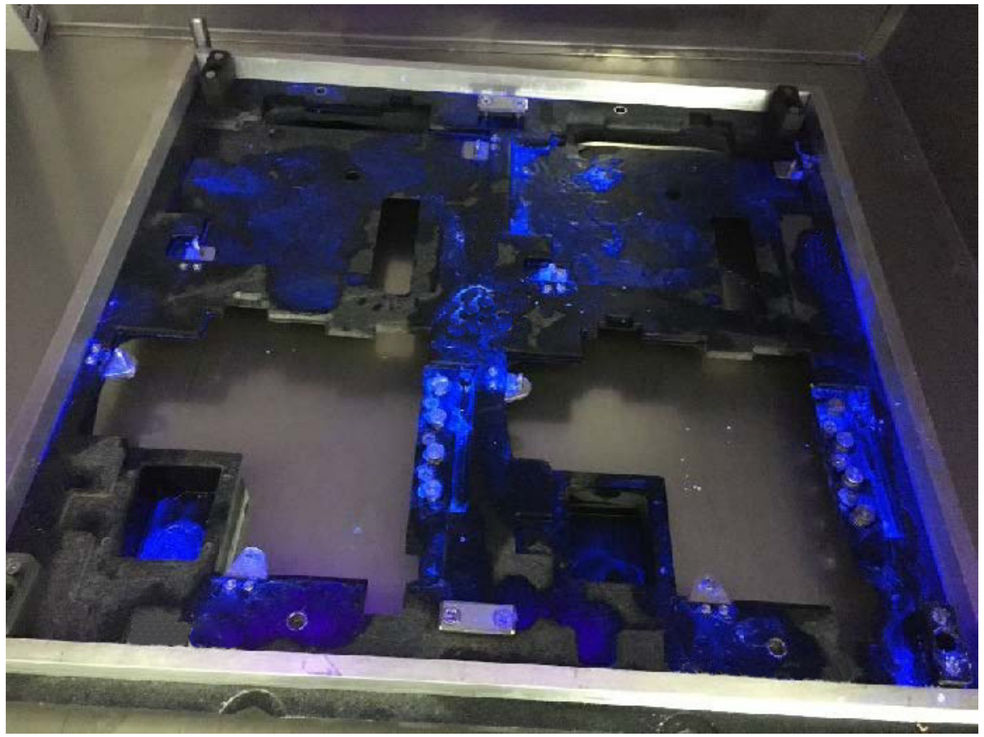
WHAT IS THE CUSTOMER'S STORY?

The customer has implemented the manufacturing process, during which the silicone coating is used. **Cleaning of cured silicone is very unique and challenging**, and we don't know about any other company which would be able to provide such effective cleaning solutions as DCT. Based on positive references from our current customers, they have contacted us, and then we have received their components for testing in our DEMO center. Furthermore, during testing period, **DCT has developed new cleaning agent for the removal of silicone.**

WHAT WE TESTED?

DCT R&D team tested sample components in our laboratory. **They tested how to remove silicone based conformal coating from coating frames.**

Components Before Cleaning



COMPLETE CLEANING SOLUTION BY DCT

Technical data sheet

see our videoreport

Alcohol-based cleaning agent
Proton® 703

Technical data sheet

see our videoreport

A) Cleaning system **Sonix® 954 CRD Piano**
with ultrasonic technology

Technical data sheet

see our videoreport

B) Cleaning system **InJet® 888 CRRD**
with horizontal high-pressure Spray-In-Air

Perfect results were observed in both cleaning systems in combination with Proton® 703.

Cleaning time needed for complete removal of the coating was **3 hours in Sonix® 954 CRRD** and **3,5 hours in InJet® 888 CRRD.**

The silicone layer was really thick and the degree of pollution was high fot the testing purposes. Eventought, the results were excellent.

To remove all the residues of Proton® 703 and to protect aluminium, rinsing with acidic fluid Decotron® ACW 115 is necessary in both cases!

RECOMMENDED CLEANING PROCESS

A)

Cleaning system:
Sonix® 954 CRD Piano

Technology: ultrasonic

Cleaning: Proton® 703
180 min / 45°C

1st Rinsing: Decotron® ACW 115
5 min / 30°C

2nd Rinsing: DI Water / 5 min / 30°C

Drying: hot air / 30 min / 80°C

B)

Cleaning system: InJet® 888 CRRD

Technology:
horizontal high-pressure Spray-In-Air

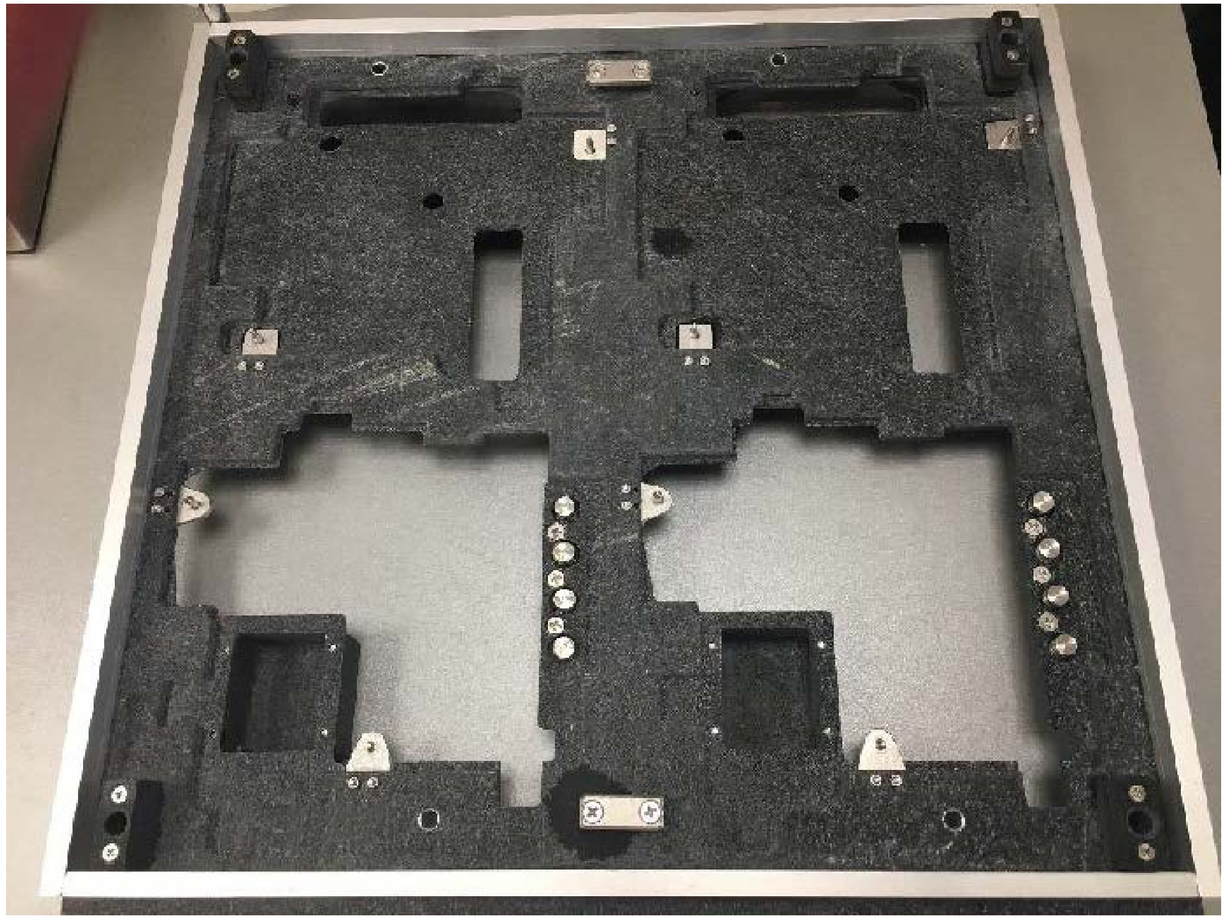
Cleaning: Proton® 703
210 min / 45°C / 2,5 bar

1st Rinsing: Decotron® ACW 115
5 min / 30°C

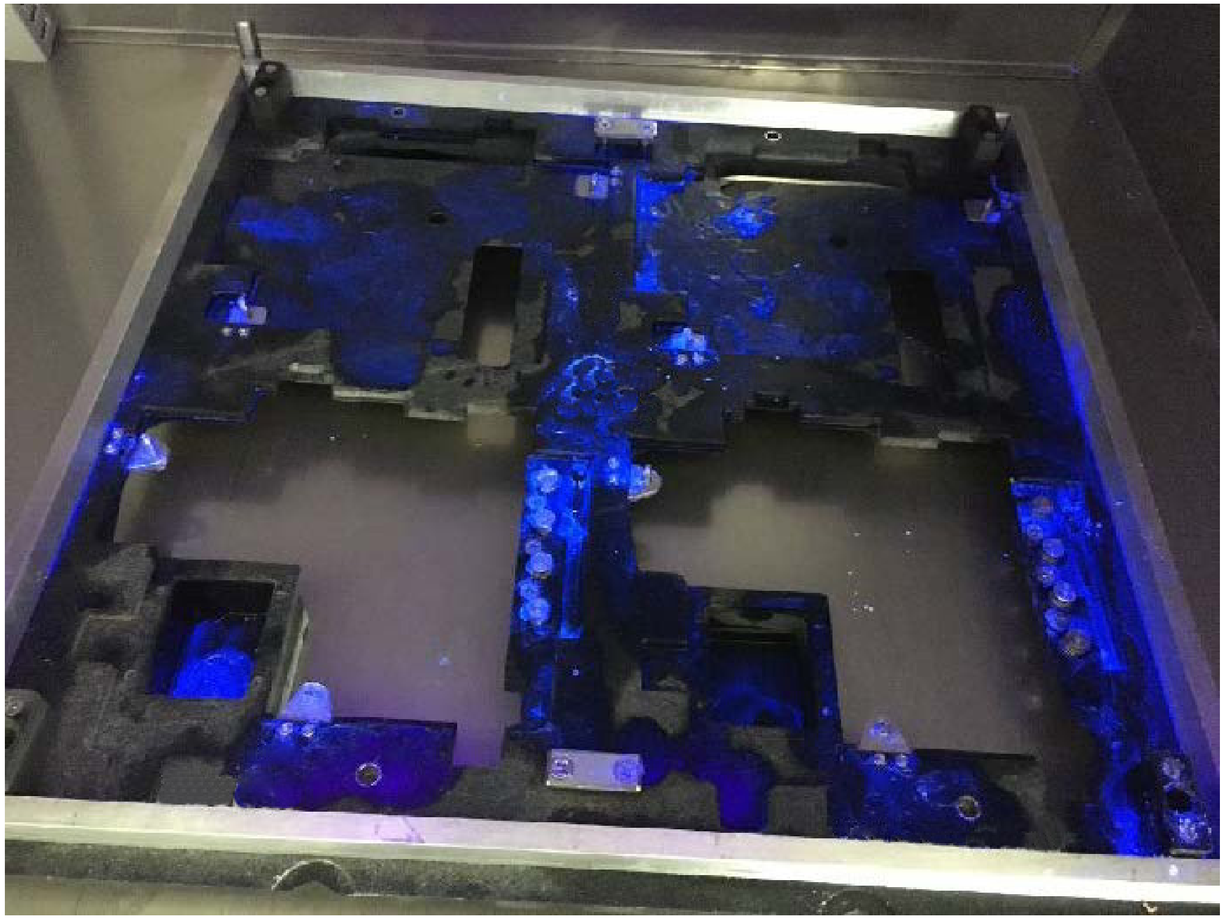
2nd Rinsing: DI Water / 5 min / 30°C

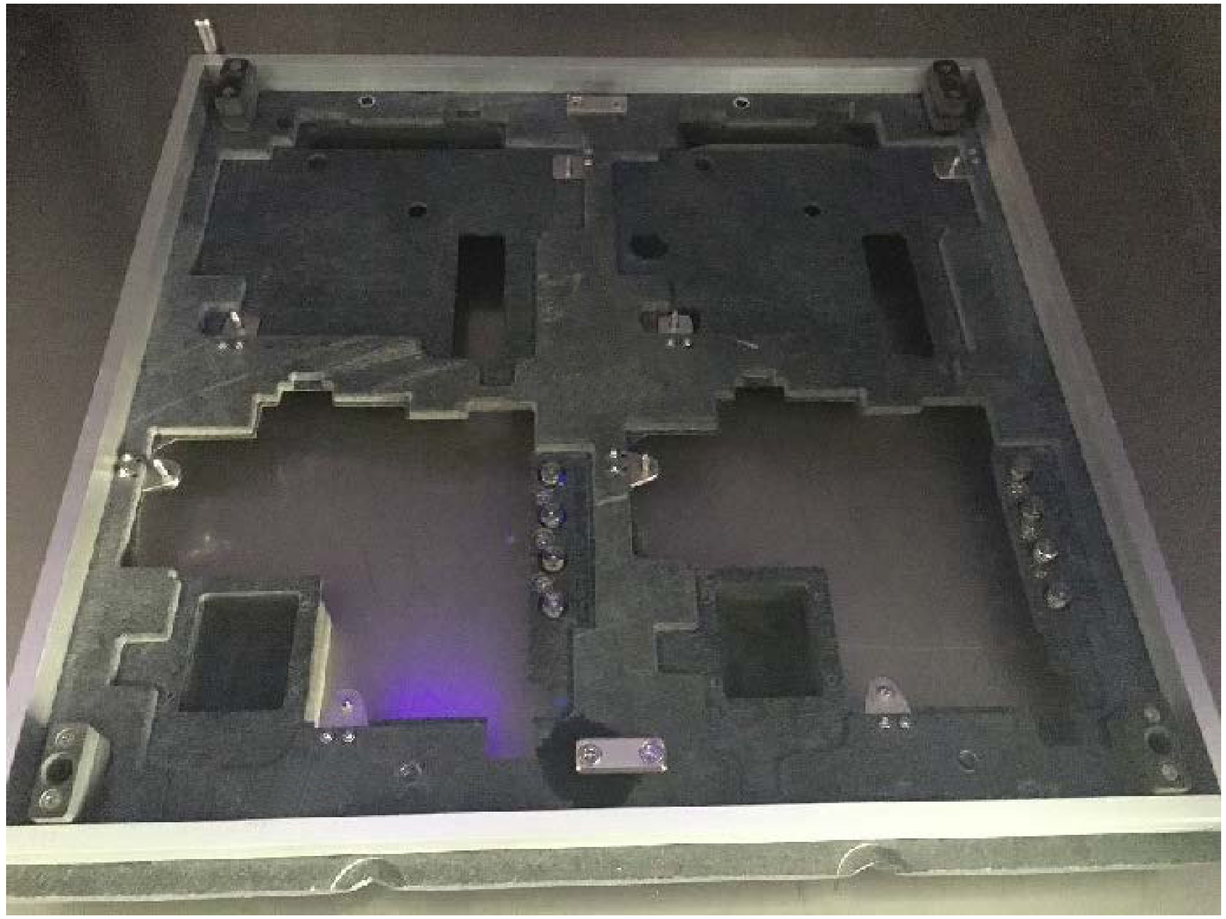
Drying: hot air / 30 min / 60°C

Coating Frames BEFORE Cleaning → AFTER Cleaning with Proton® 703



Coating Frames BEFORE Cleaning → AFTER Cleaning with Proton® 703





RECOMMENDED CLEANING AGENT

Proton® 703

Technical data sheet

see our videoreport

- ✓ Alcohol-based cleaning fluid
- ✓ Determined to remove silicone coatings
- ✓ Provides effective cleaning for all cured and uncured confomal coatings
- ✓ Effective for most types of acrylic coatings
- ✓ High compatibility with most aluminium alloys of coating frames

Proton® 703 is our first cleaner for the removal of silicone from PCBs, coating frames, and components of coating machines parts. It is highly recommended in case that the particular component contains aluminum parts **as Proton® 703 is compatible with most metals in comparison with stronger and newer cleaning fluid Proton® 705.**

You can read about the cleaning process with **Proton® 705 HERE**

RECOMMENDED CLEANING SYSTEM

Technical data sheet

see our videoreport

Sonix® 954 CRD Piano

with technology of ultrasound

Designed to remove the cured conformal coating from coating frames, PCBs and parts of coating machines

- ✓ **Fully-automatic cleaning system**
- ✓ **All cleaning processes take place in one process chamber**

★★★ **CONFORMAL COATING** removing
★★ **PCB** cleaning

RECOMMENDED CLEANING SYSTEM

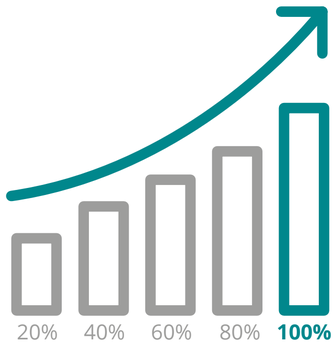
InJet® 888 CRRD

Technical data sheet

see our videoreport

Effective for the cleaning of conformal coating, including silicone.

★★★ **REFLOW** and **SOLDERING PARTS** cleaning
★★★ **PCB** cleaning
★★ **CONFORMAL COATING** removing
★ **STENCIL, MISPRINT, SQUEEGEE** cleaning



RESULTS OF TESTING

Success rate: 100%

The customer was really pleased with the **perfect results** of testing with **Proton® 703**. However, DCT is currently waiting for the newest development pattern of customer's coating frames. **Another test will be done with Proton® 705 as this cleaning agent has been developed only a month after testing with Proton® 703.** So the newest type of coating frames will be tested with our newest cleaner for silicons. The old type of coating frames has been already tested with amazing results.

You can read the case study HERE.