



HOW TO REMOVE SOLDER PASTE FROM **PRINTING STENCILS,** **MISPRI**NTS AND **PCBA**s

STENCIL + MISPRINT + SQUEEGEE



WHAT IS THE CUSTOMER'S STORY?

The customer used flammable and aggressive fluid **to remove solder paste ALPHA OM-340 88-3-M1 from stencils, misprints, and PCBAs**. This type of fluid was unfortunately also highly foaming. The customer's need has been **lower VOC**, which would be consistent with the set limit, so in this case, we solved **ecological problems**, but also **economical savings**.



WHAT WAS TESTED?

Our R&D Team Tested Cleaning of:

- A,** Printing stencils from unsoldered ALPHA OM-340 88-3-M1 solder paste
- B,** Misprints of ALPHA OM-340 88-3-M1 solder paste on PCBs
- C,** PCBAs after soldering process with ALPHA OM-340 88-3-M1 solder paste



Type of Solder Paste:

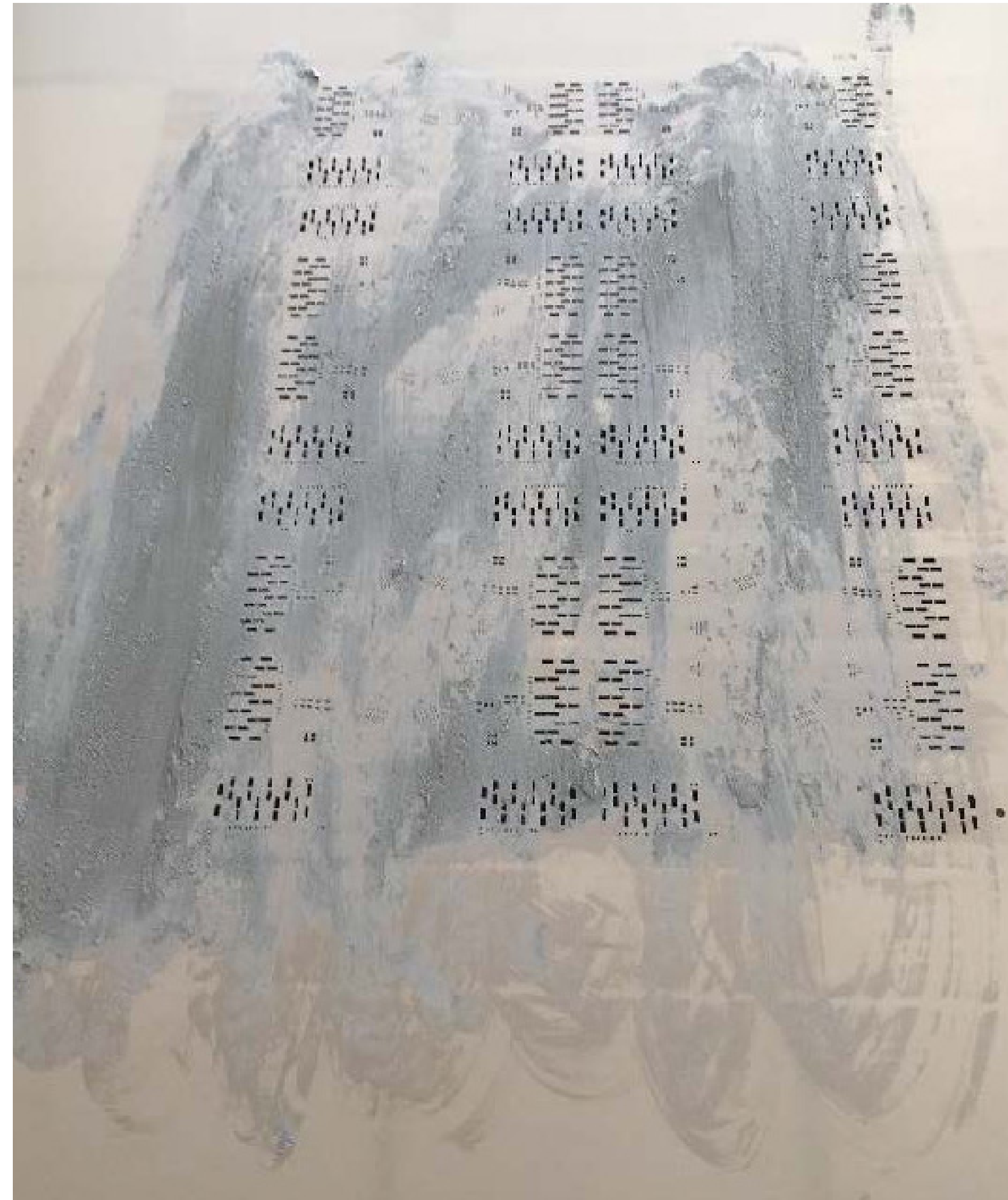
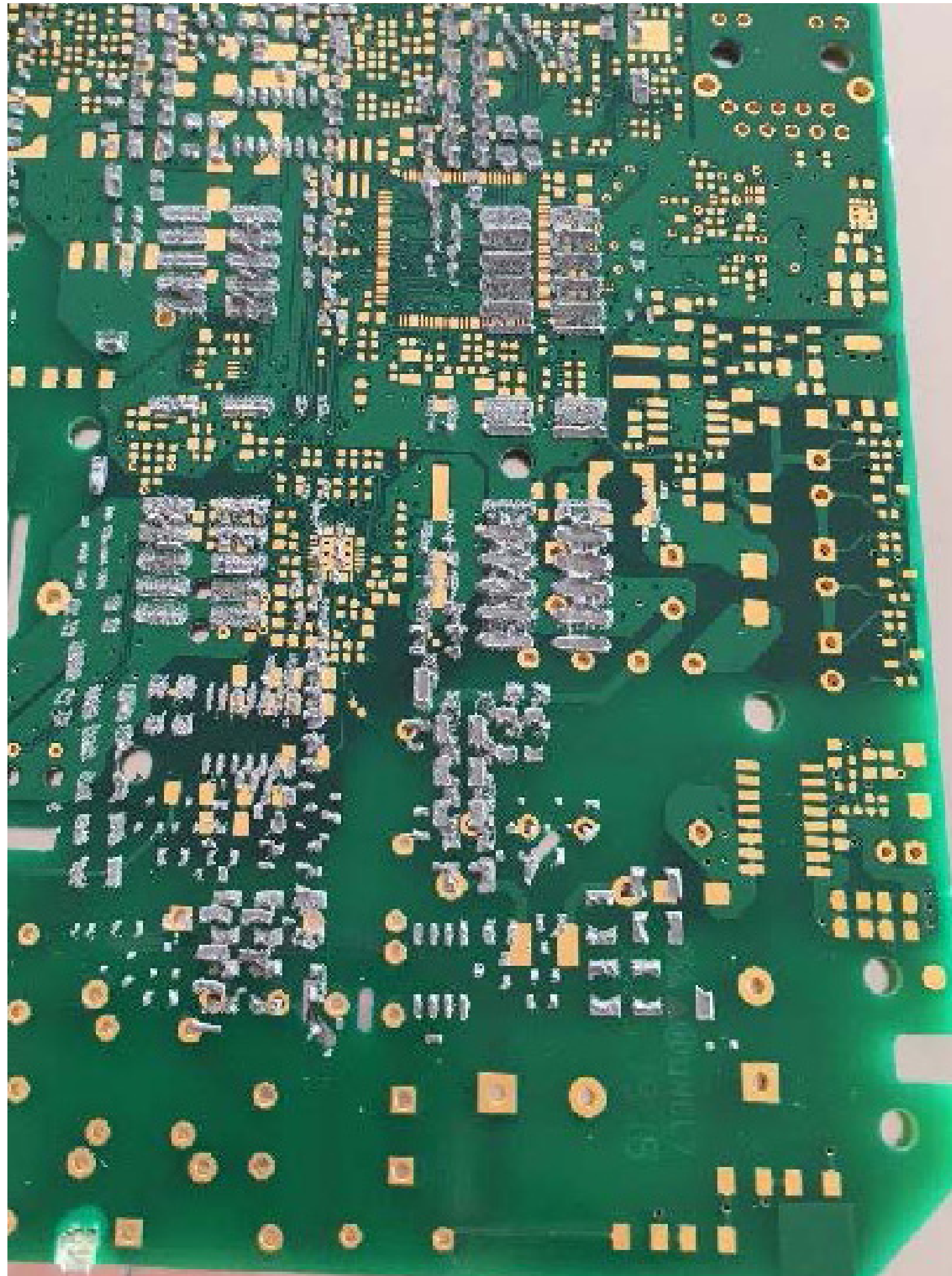
ALPHA OM-340 88-3-M1

Types of Cleaned Components:

2 panels of soldered PCBAs

1 panel of PCBs without components

Components Before Cleaning





COMPLETE CLEANING SOLUTION BY DCT



Technical data sheet

Water-based cleaning agent
Decotron® CP381

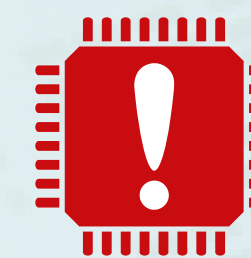


Technical data sheet



see our videoreport

Cleaning system **InJet® 388 CRD**
with external filtration



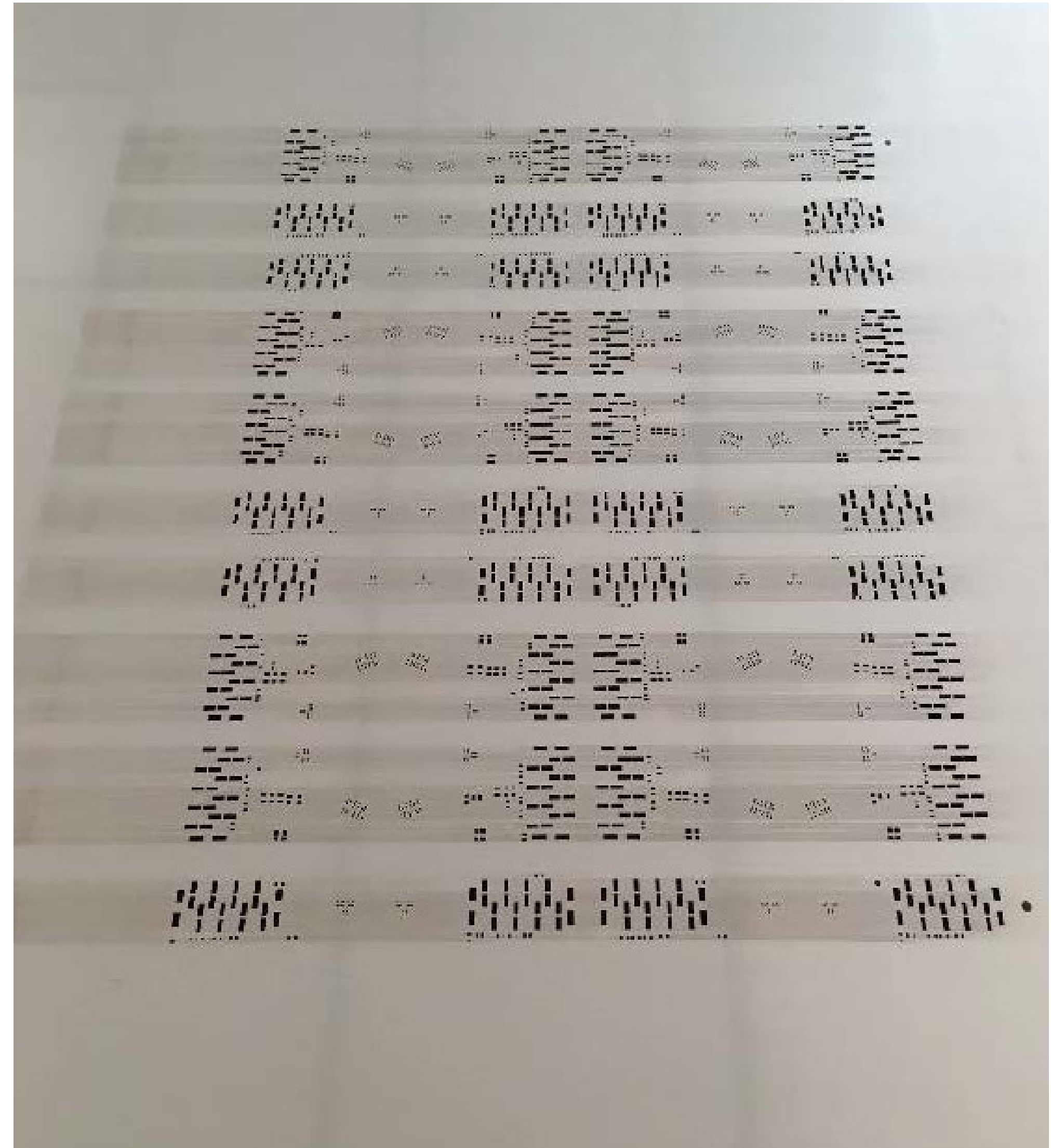
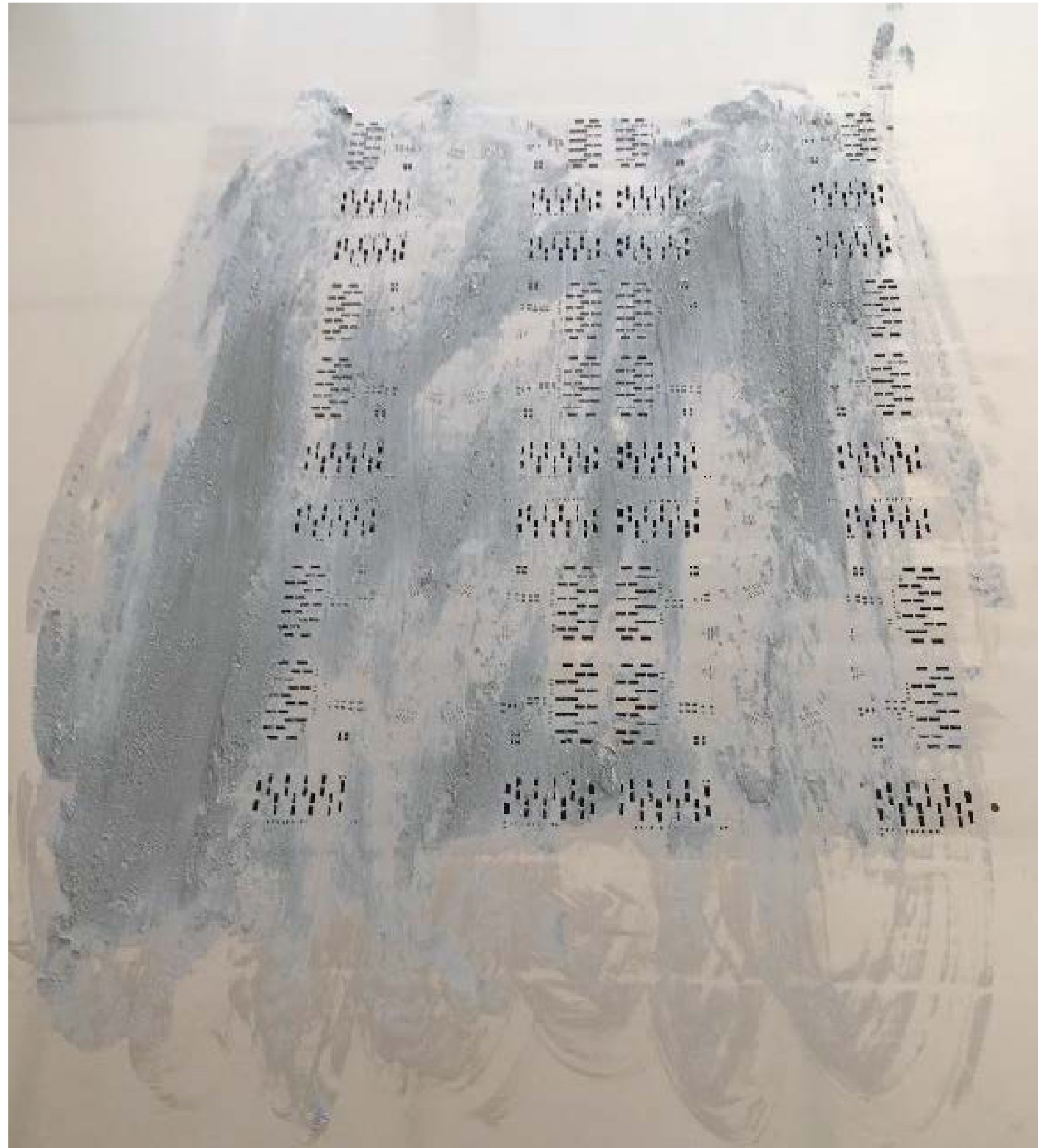
To make mounting of PCBs precise, printing stencils have to be clean! This is the reason why any production should clean printing stencils regularly.

STENCILS

BEFORE Cleaning



AFTER Cleaning

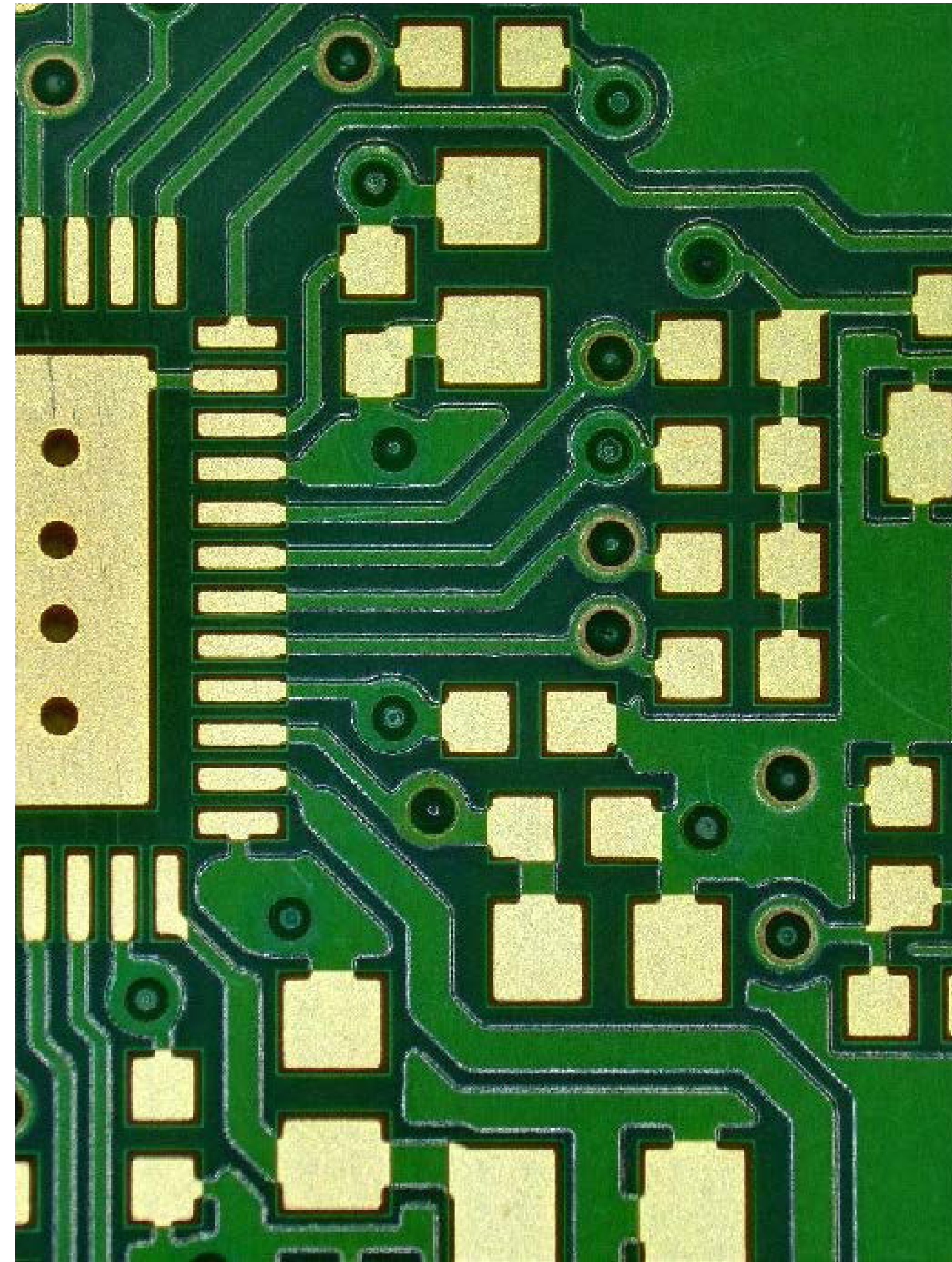
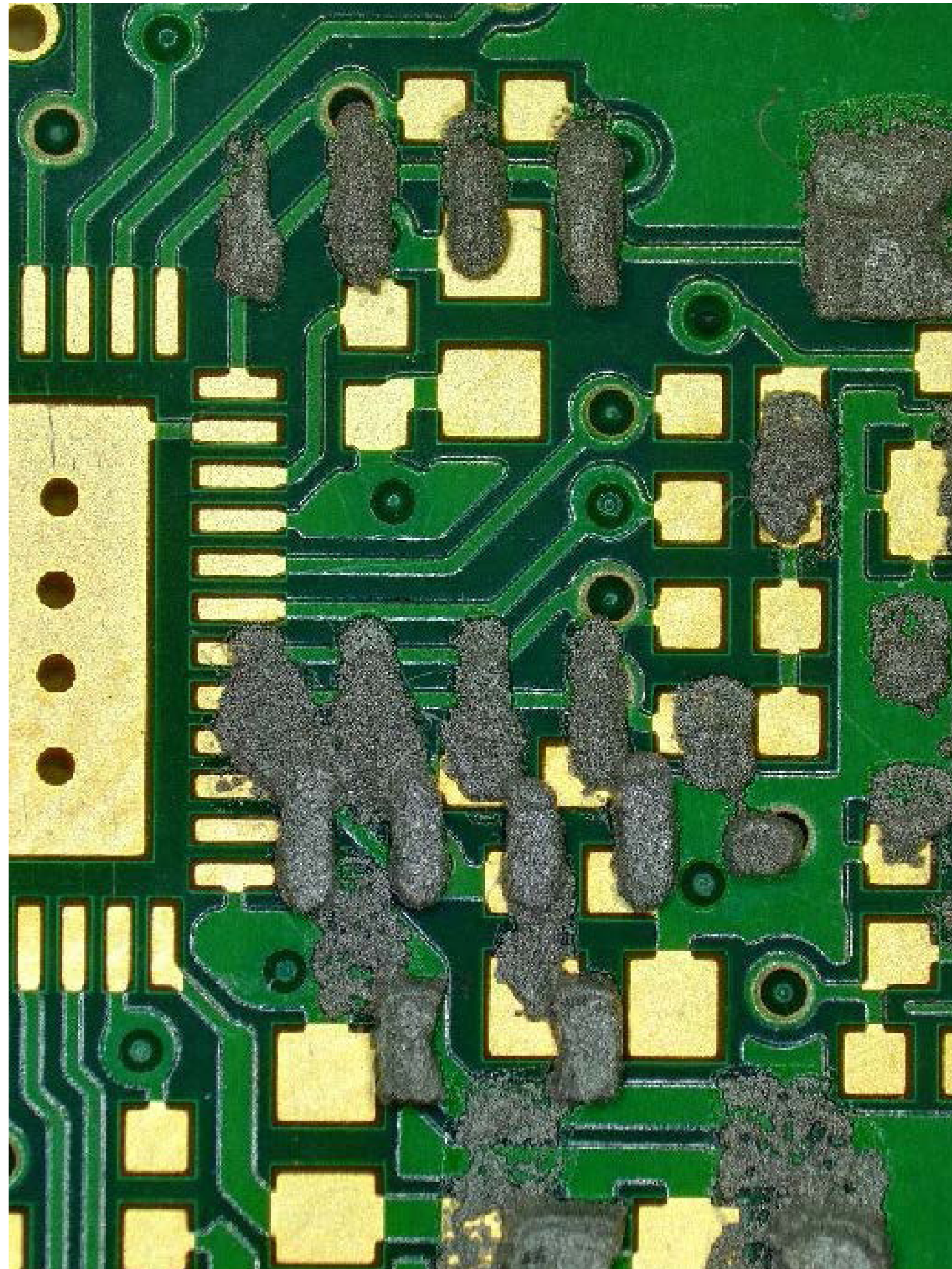


MISPRINTS

BEFORE Cleaning



AFTER Cleaning





RECOMMENDED CLEANING PROCESS

STENCILS + MISPRINTS

Cleaning: Decotron® CP381 / 5 min / 40°C / 2,1 bar

Drip: 120 s

Rinsing: DI Water / 5 min / 30°C

Drip: 90 s

Drying: hot air / 5 min / 80°C

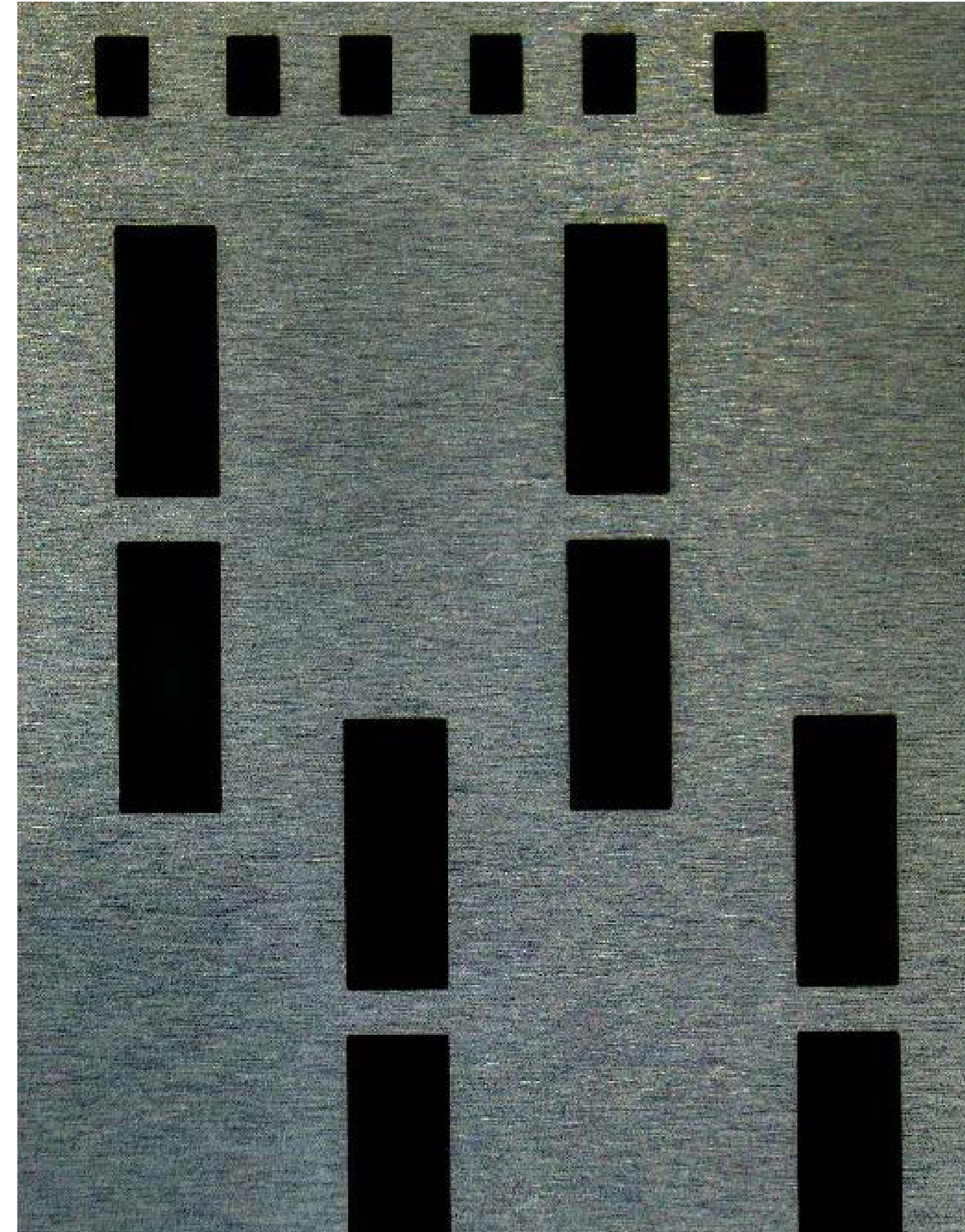
Total process time: 18,5 min



STENCILS

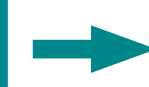
BEFORE Cleaning →

AFTER Cleaning

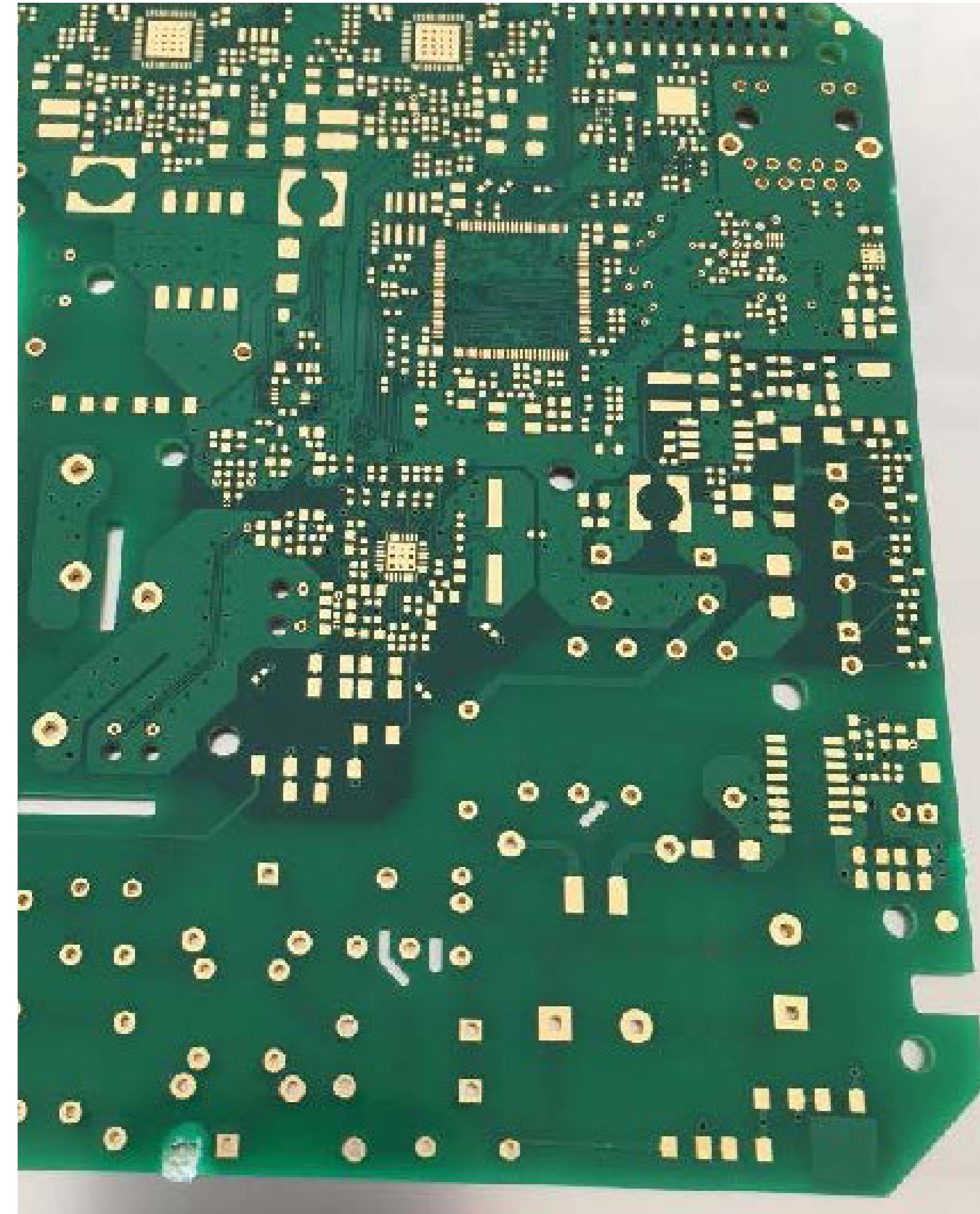
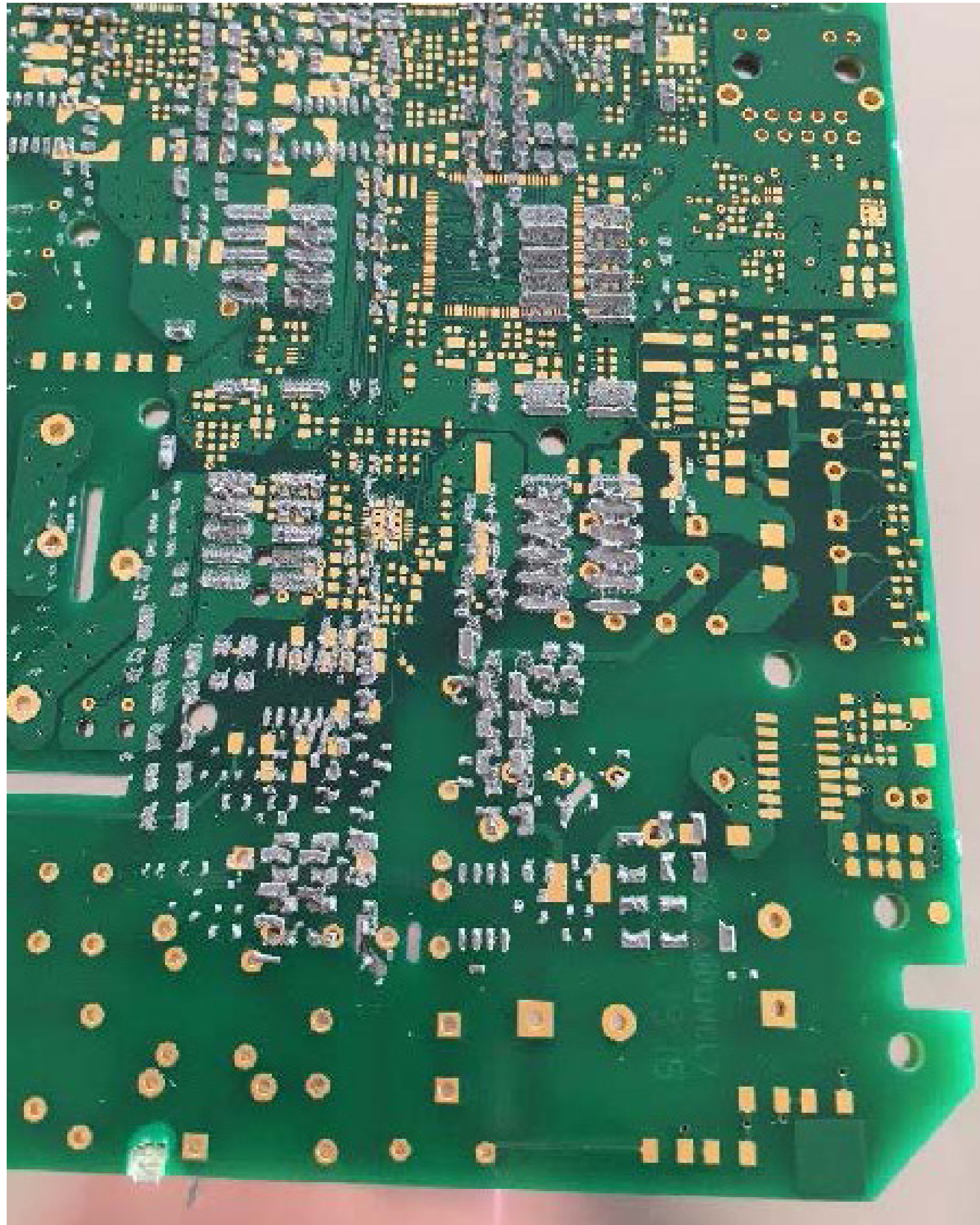


MISPRINTS

BEFORE Cleaning



AFTER Cleaning





RECOMMENDED CLEANING PROCESS

PCBs AFTER SOLDERING PROCESS

Cleaning: Decotron® CP381 / 10 min / 50°C / 2,1 bar

Drip: 120 s

Rinsing: DI Water / 10 min / 30°C / 1 µS

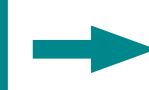
Drip: 90 s

Drying: hot air / 5 min / 80°C

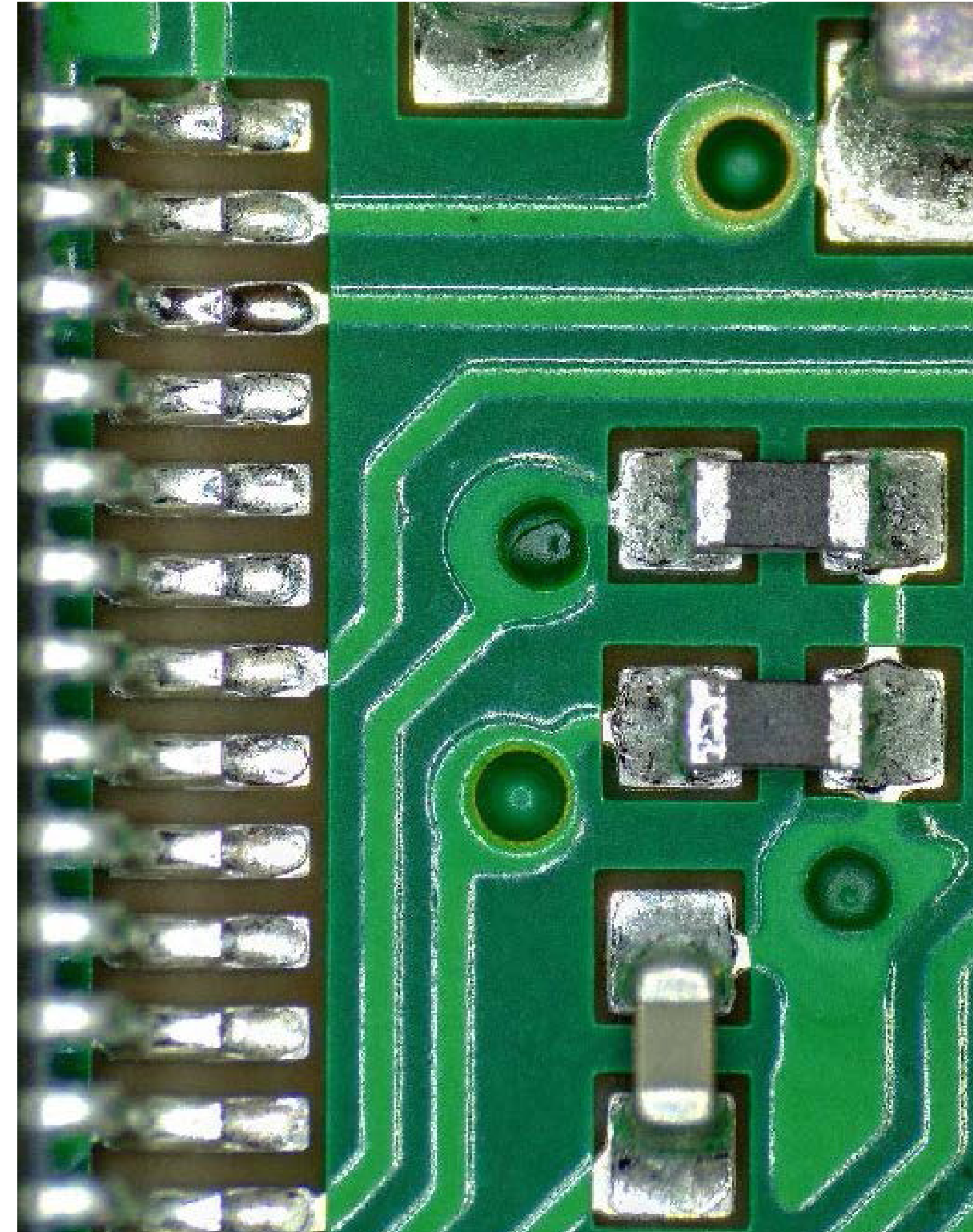
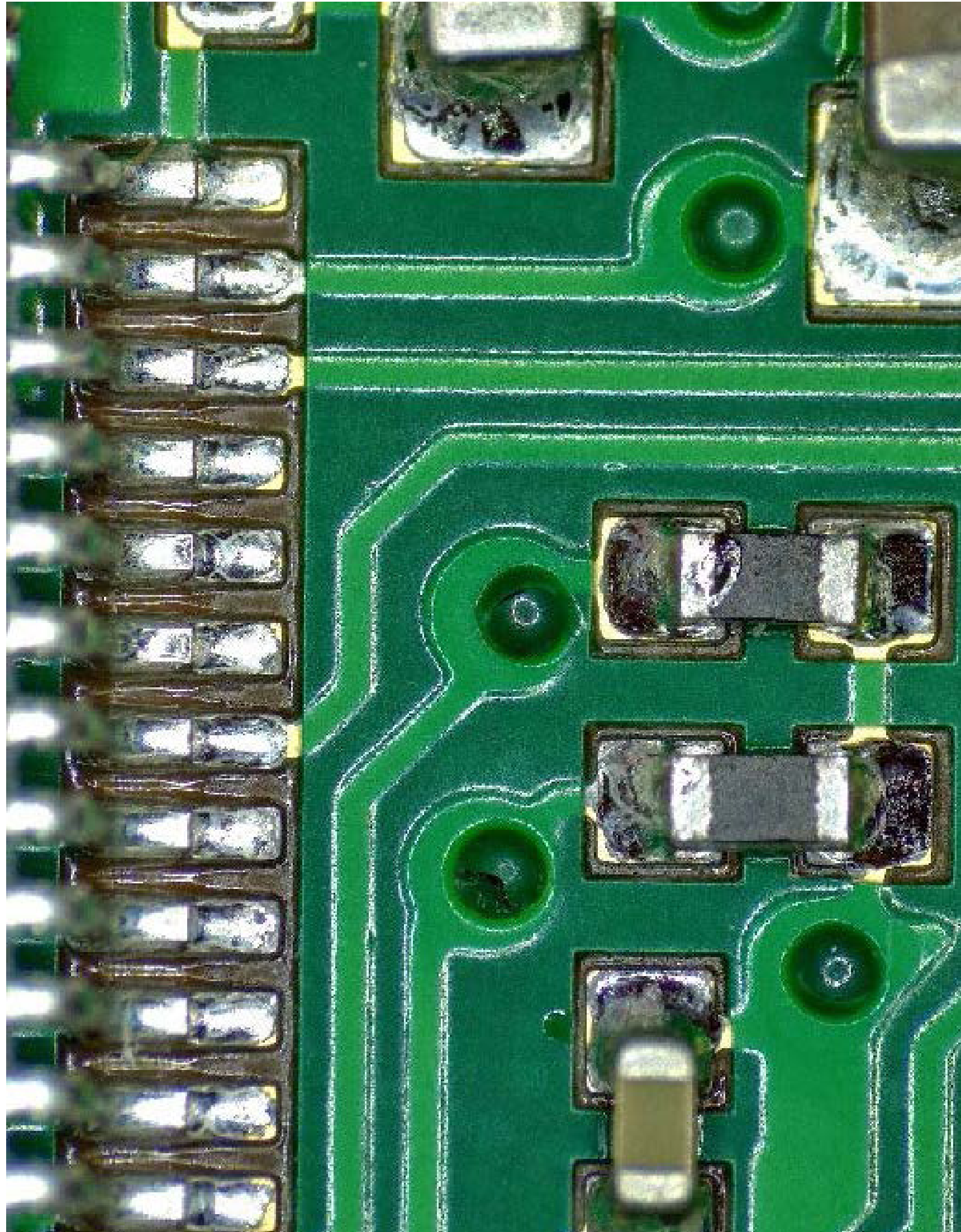
Total process time: 28,5 min

PCBAs

BEFORE Cleaning



AFTER Cleaning

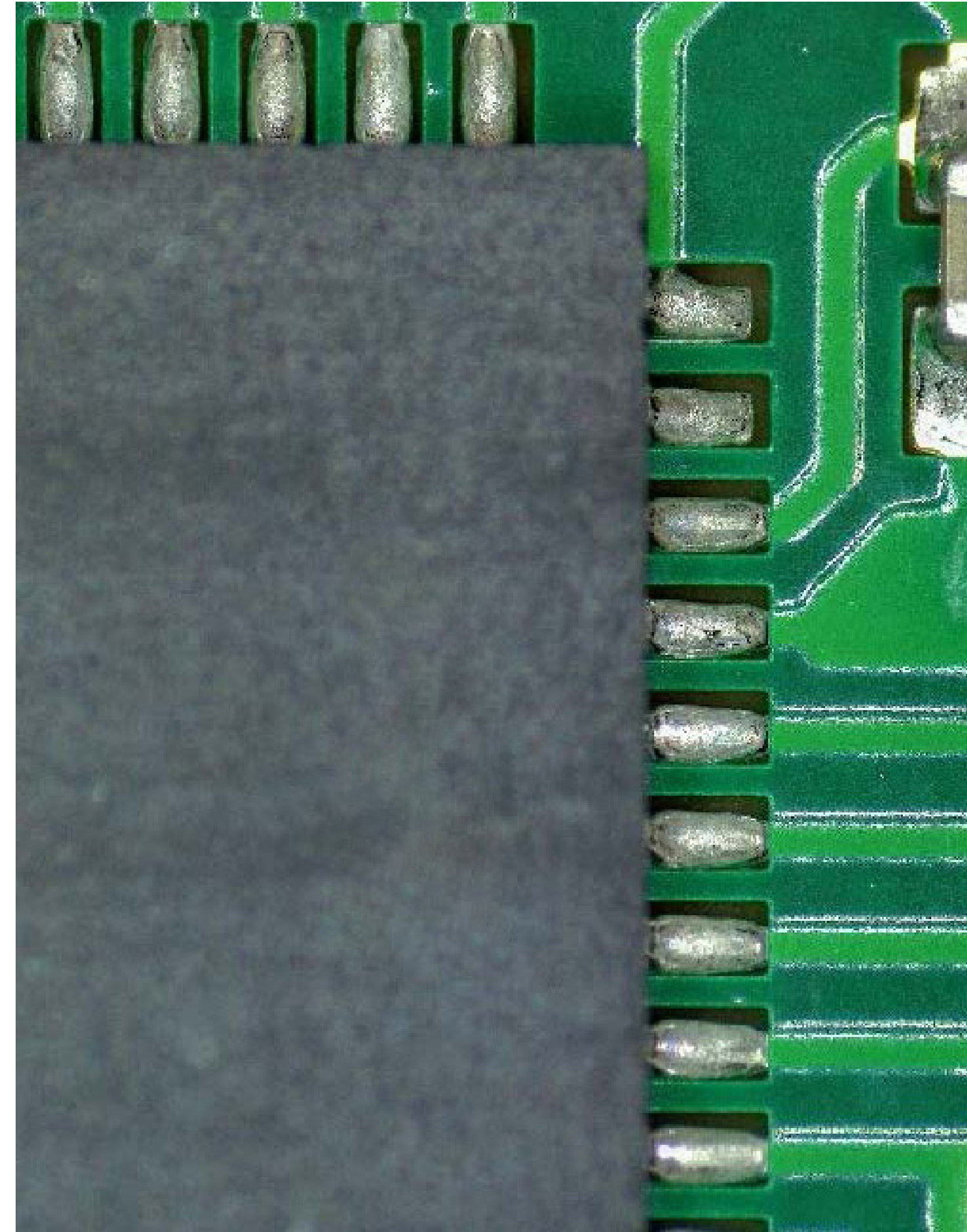
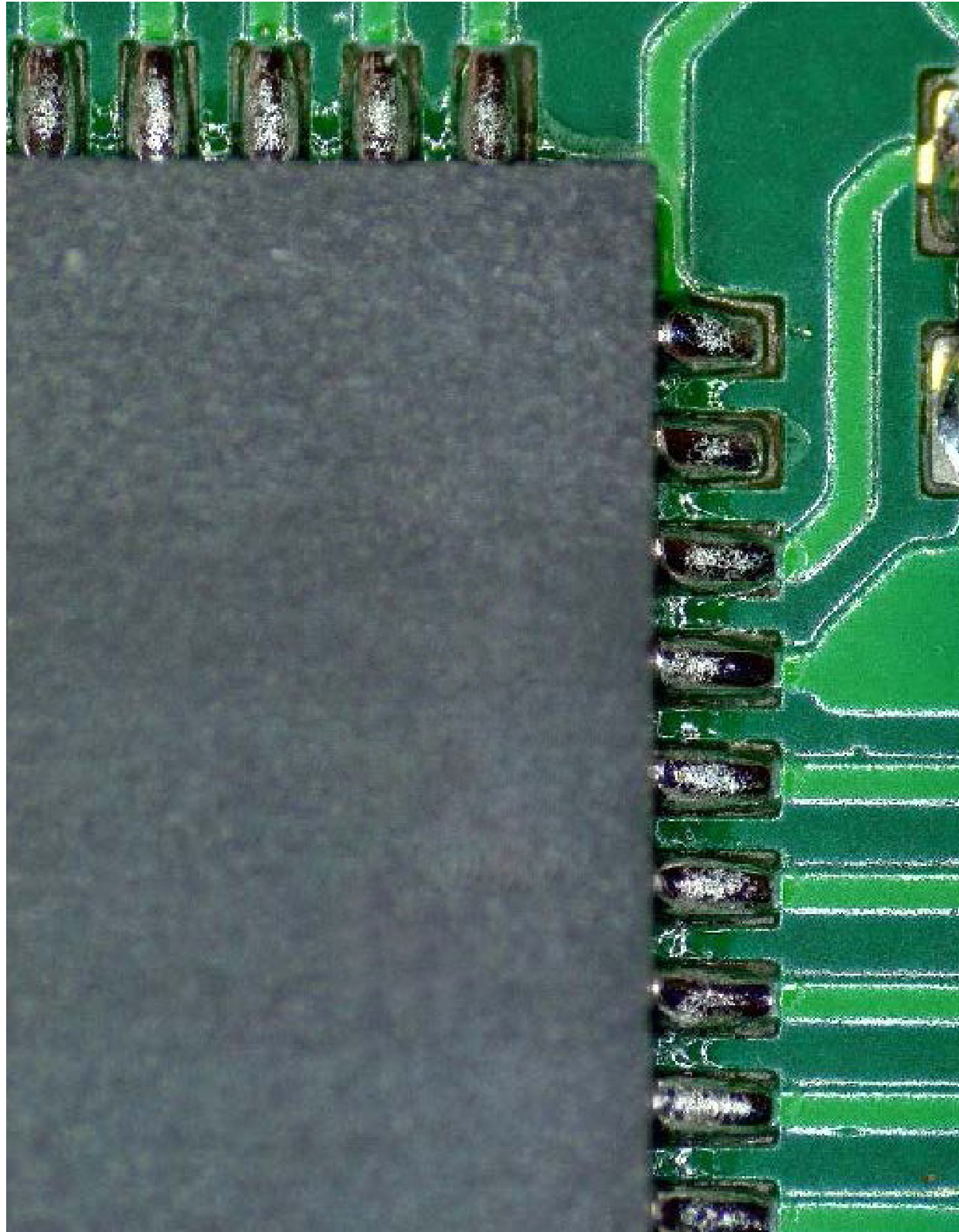


PCBAs

BEFORE Cleaning



AFTER Cleaning



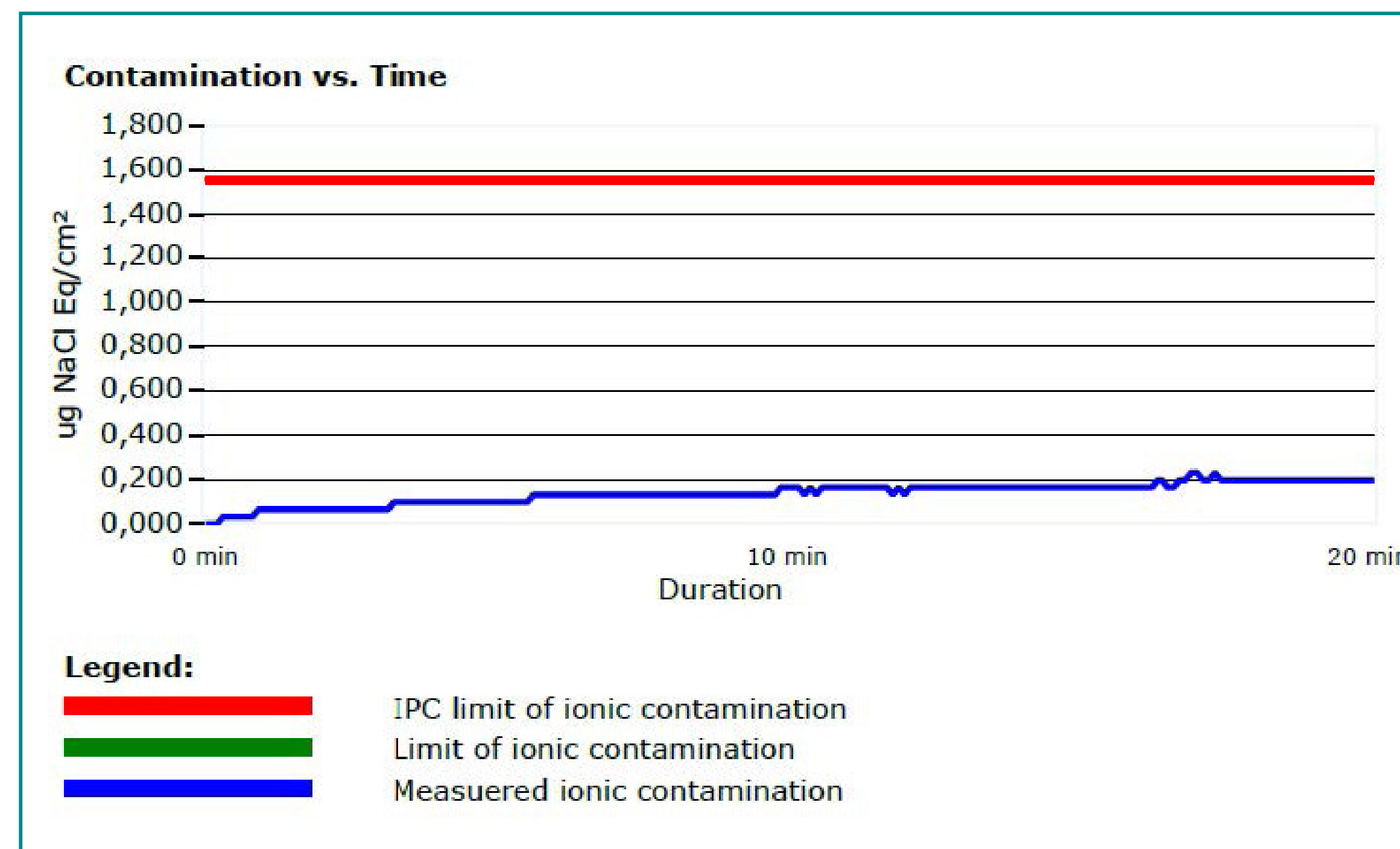


IONIC CONTAMINATION TEST

We have performed **ROSE** (resistivity of solvent extract) test after cleaning with **Decotron® CP381** cleaning agent in **Injet® 388 CRD** cleaning system.

IPC limit of ionic contamination (*red line*) corresponds to **1,56 µg NaCl/cm²**.

Limit of ionic contamination (*green line*) is an option to enter your own limit – in this case the limit was not specified by the customer.



Result of measured ionic contamination (*blue line*) is **0,198 µg NaCl/cm²**



RECOMMENDED CLEANING AGENT



Technical data sheet

Decotron® CP381

for all three applications with set parameters described in this case study.

- ✓ Water-based cleaning fluid
- ✓ Determined to clean misprints
- ✓ Removes flux residues from PCBs after soldering process
- ✓ Intended for use in all types of DCT cleaning system, mainly in high pressure Spray-In-Air cleaning systems



RECOMMENDED CLEANING SYSTEM

InJet® 388 CRD with external filtration



Technical data sheet



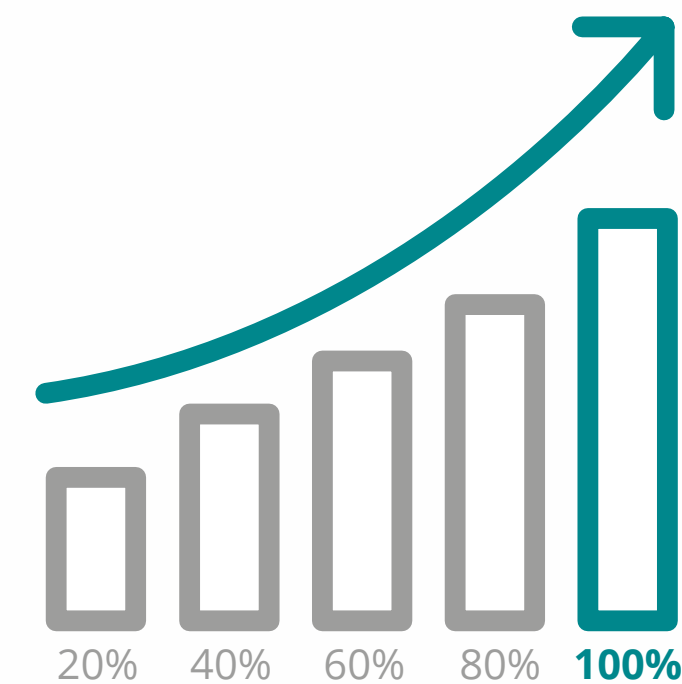
see our videoreport

- ★★★★ **STENCIL, MISPRINT, SQUEEGEE** cleaning
- ★★★★ **PUMPRINT** cleaning
- ★★★★ **CONFORMAL COATING** removing
- ★★★★ **PCB** cleaning





RESULTS OF TESTING



Success rate: 100%

The customer was satisfied with the results as we provided them with a more **eco-friendly** and sophisticated cleaning agent, which will **lower their VOC**, and which is also more economical speaking in the long term view.