

Cleaning processes in photovoltaics





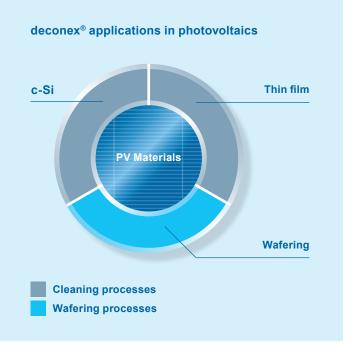
Aqueous cleaning experience

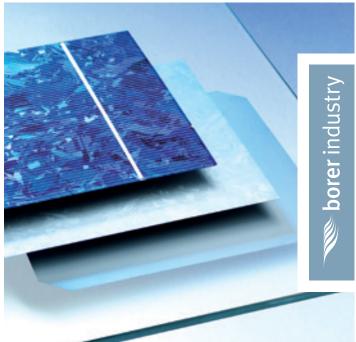
Borer Chemie AG – Your competent partner in cleaning

We are a cutting edge company leading the world in the fields of water based cleaning for professional applications in the industrial sector. This know how will be carried forward especially to the PV Industry.

Since our foundation in 1965, we have been developing, producing and selling recognised brand products and proven processes for demanding applications under our brand deconex®. In the sales department we work together with experienced partners from around the world and are able to offer competent advice on site.

Our team of qualified and motivated employees in Zuchwil, Switzerland is committed to research, development, production, marketing and sales for our customers. Our subsidiary in Shanghai targets the needs of the Asian markets. The Borer Chemie AG in-house technical department with a dedicated team develop processes and formulations for our customers cleaning needs. Thanks to our expertise and know how to apply it best, we are working closely with our customers to find new ways to optimise existing cleaning processes and/or successfully develop new processes.





Photovoltaics

Photovoltaics – Clean energy needs clean production processes

As part of the production chain of the photovoltaic industry cleaning is crucial at many points during the process, whether the production process is based on crystalline silicon or thin-film technology.

High throughput and high cleaning performance is leading to a better yield, better quality level and is important today to get an advantage in competition in the PV Industry market.

Borer Chemie AG offers solutions for continuous and repeatable cleaning results in the photovoltaic industry.

Through an individually adapted cleaning process design in combination with the deconex® products selected to fit the task, you can better meet the cleaning requirements of your industry.

Whether you want to optimise an existing cleaning process or you have to find a solution for a completely new water-based cleaning task, you can rely on Borer Chemie AG to provide process advice in the area of aqueous chemical cleaning.

Borer Chemie AG is well equipped to evaluate and implement the needs in cleaning processes.

We are here to assist you. Get in touch with us.

Features of the deconex® PV products

| The deconex® PV productline concentrate on cleaning processes in the photovoltaic industry. Materials to be cleaned as part of the production chain of the photovoltaic industry are crystalline silicon or thin-film substrates. | ← deconex® PV 100 | ← deconex® PV 102 | ← deconex® PV 110 | ← deconex® PV 120 | ← deconex® PV 140 | ← deconex® PV 200 | ← deconex® PV 210 |
|---|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| Strongly alkaline | 0 | • | 0 | 0 | 0 | • | 0 |
| Mildly alkaline | • | 0 | • | • | 0 | 0 | • |
| Neutral | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Acidic | 0 | 0 | 0 | 0 | • | 0 | 0 |
| Application - pre-cleaning and detailed cleaning | | | | | | | |
| In-line ultrasonic | • | • | • | • | • | 0 | 0 |
| In-line spray | • | | • | | | 0 | 0 |
| In-line brush | • | | • | • | • | 0 | 0 |
| Ultrasonic bath | • | • | • | • | • | • | • |
| Cleaning features | | | | | | | |
| Cleaning effect - chelating property | • | | | • | 0 | • | • |
| Inhibits sediment formation - sequestering property | • | • | • | • | • | • | • |
| Buffer function | 0 | • | • | 0 | 0 | 0 | • |
| Non foaming | • | • | • | • | • | 0 | 0 |
| Easy to rinse | • | • | • | | • | • | • |
| Reduced surface tension | • | | • | | 0 | • | • |
| Surfactant | • | • | • | • | 0 | • | • |

Special deconex® PV products for cutting processes

Borer Chemie AG has developed special deconex® PV detergents for cutting crystalline silicon and special materials with diamond wire.

Borer Chemie AG is therefore perfectly equipped for the future of this revolutionary technology in the photovoltaics industry.