Company profile – 2025/07:

Fill Factory s.r.o. (www.fillfactory.cz) is a SME established by former employees of Solartec company in July 2014. Fill Factory fully undertook the part of solar cells production and module production. Fill Factory is currently active in five areas related with photovoltaics – solar cells, PV modules, PV systems, development of electronic applications and RTD activities. Fill Factory is focused on development and production of customized crystalline silicon solar cells - p and n-type cells, cells with rear side contacts, solar cells for concentrator application, coloured solar cells, semi-transparent solar cells, mini and micro-cells. PV module area is mainly represented by development and production of customized modules with various module structures and for various applications – glass/glass modules, semi-transparent modules, facade modules, PV insulated glass, coloured PV modules, PV mosaics, systems for concentrators, integrated PV mini-modules, automotive PV modules, PV modules for street lights, PV mini-modules on PCB. Fill Factory also offers expertise in PV module diagnostic and reparation. Own production of BIPV modules is supported by designing and construction of complex PV systems including storage systems. Fill Factory is also active in development of own electronic applications for photovoltaics. Fill Factory carries out internal RTD projects focused on development of new and advanced products and services supported by own RTD laboratory. Key persons of Fill Factory (working in Solartec over 15 years) have wide experience not only in the wafer based solar cell technology but also in R&D area achieved during collaboration within nationally-funded projects in Czech Republic (all together more than 15 projects) as well as EU founded projects focused on concentrator solar cells and improved designs of the Si wafer and PV module technology.

FF takes advantage of its know-how in this field for:

- Development and production of customized crystalline silicon solar cells
- Development and production of customized PV modules
- Characterization of materials, surfaces and semiconductor structures
- Evaluation of processing materials
- Designing and assembling of production tools and equipment
- Designing and construction of customize PV systems – BIPV, roof installations

Description of infrastructure or technical equipment relevant to the project.

Processing line for customized production of crystalline silicon solar cells. Class 100 and 10.000 clean rooms with the technology for solar cell production (etching/cleaning lines, high temperature furnaces for phosphorus and boron diffusions, oxidation, LPCVD and PECVD, screen-printing semi-automat, IR belt furnace for paste sintration, IR and green lasers, magnetron sputtering, …).

Processing line for customized production of PV modules with crystalline silicon solar cells. laminator, PV module I-V flash tester, insulation tests, EL, IR camera, PID evaluation, various tests in the climatic chamber are also possible, …).

Diagnostic laboratory for evaluation of semiconductor structure and devices. Facilities for the Si wafer and solar cell characterisation (4PP, MWPCD, QE/R, QSSPC, AFM, LBIC, EL, deep focus optical microscopy, I-V curve tester, …).

Software tools: SolidWorks, software for simulation of PV systems