

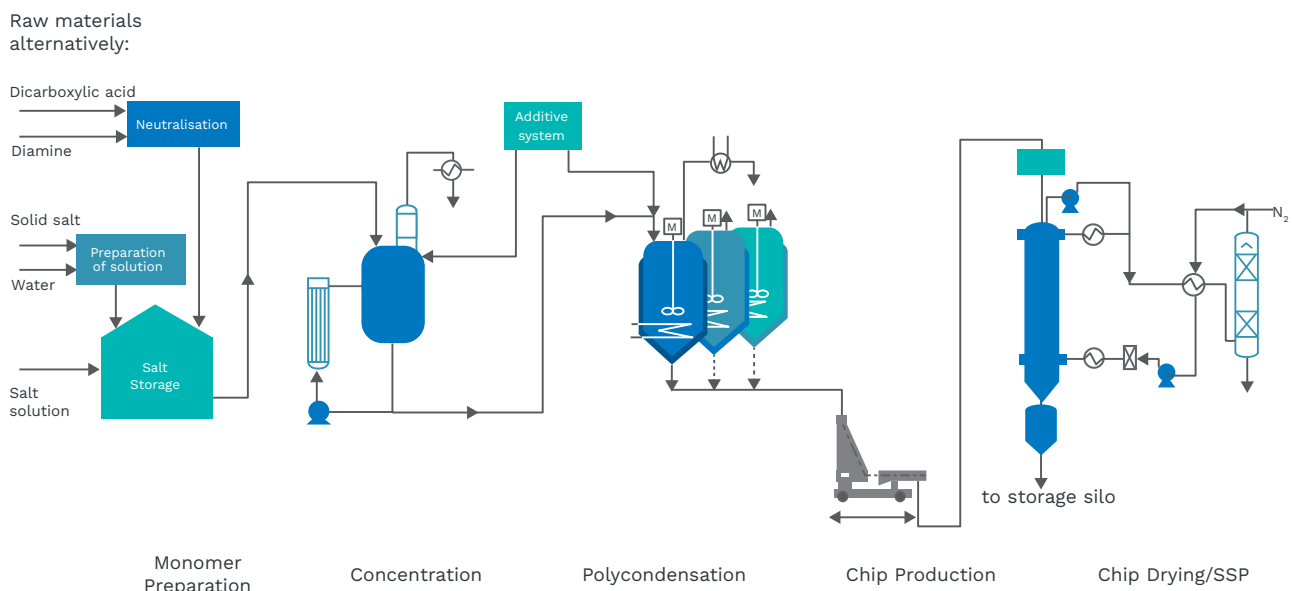
PA6.6 and speciality polyamides

Zimmer® multi-autoclave process for PA6.6 and other speciality polyamides.

To produce the nylon polyamide PA6.6 an AH-Salt solution is either created from the monomers adipic acid and hexamethylenediamine (HMD) or by dissolving solid AH-Salt with water. This nylon salt solution is added to the concentration unit where water is evaporated to increase the salt concentration. It is then transferred to the autoclave where the polycondensation reaction takes place. Additives can be blended to the concentration unit and polycondensation unit. Multiple autoclaves in parallel ensure a continuous solid state polycondensation (SSP) after chip production.

Efficient reactor design

Our reactor design with a sophisticated agitator ensures high shear rates, good homogenization, self-cleaning and homogenous heat input. Its versatility allows for production of a wide range of specialty polyamides (PA_{x.y} polyamides).



Typical set-up of batch plant showing the PA6.6 process

Other speciality polyamides

Other PAx.y produced with our batch process are:

- PA5.6 – based on the feedstocks of PMD and adipic acid
- PA6.10 – based on the feedstocks HMD and sebacic acid
- PA6.12 – based on the feedstocks HMD and dodecanedioic acid (DDDA)



Polymer strands from die head

Technip Energies Zimmer Polymers Technology

We provide technology, engineering, project management and procurement services for polyesters (PET, PBT, PTT, PBS) and polyamide (PA6, PA6.6) production plants. We are focused on our customers' needs. Over the last 60 years, our engineers have worked to enhance our portfolio of well-proven technologies using in-house research and development facilities. This dedication to quality has helped us to build an outstanding track record of placing our technologies in more than 800 plants.

As part of a global network of centers which manages the company's expanding portfolio of onshore process technologies in petrochemicals, refining, hydrogen and syngas, polymers, gas monetization and renewables, we have access to Technip Energies' leading global engineering, procurement, project management and construction network. Technip Energies operates in 48 countries around the world with more than 37,000 employees.



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