WACKER

CREATING TOMORROW'S SOLUTIONS

DISPERSIONS

At a Glance

WACKER has manufactured dispersions based on poly(vinyl acetate) (PVAc) on an industrial scale since 1938. The ongoing development and enhancement of the technology continually opens up new innovative technologies: the first copolymer dispersion without the addition of plasticizers, the development from a dispersion into a patented dispersible polymer powder, and the discovery of VAE (vinyl acetate-ethylene) technology for sustainable VAE copolymer dispersions, with applications such as water-based adhesives. The dispersions are marketed under the trade name VINNAPAS® and VINNOL® Vinnacoat, and are suitable for use as high-quality environmentally friendly polymer binders for various applications, where they optimize products and processes in a number of ways.

Chemical Definition

Dispersion is defined by the following criteria:

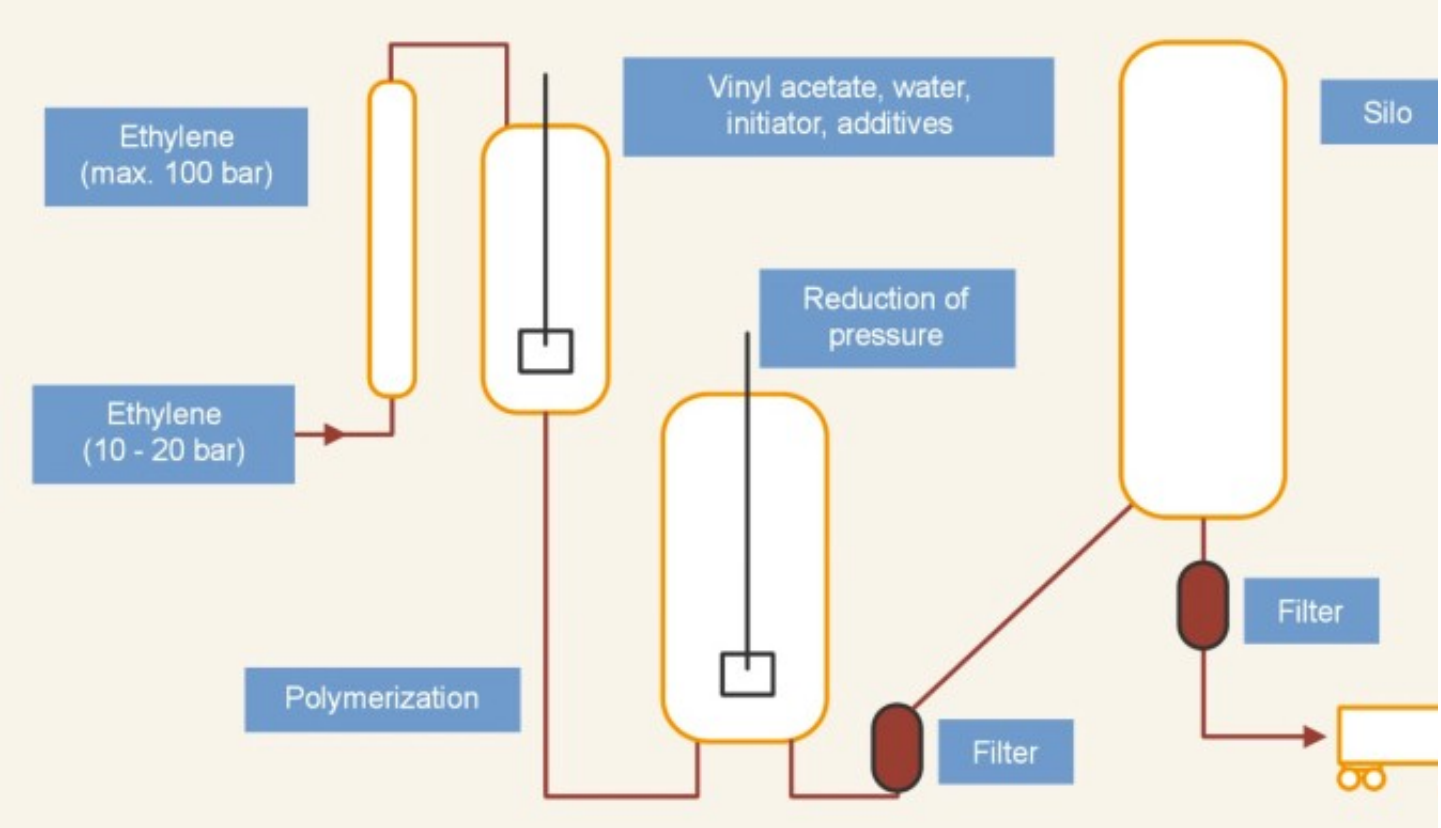
Macroscopic appearance

- White / transparent liquid
- Water as a liquid medium

Microscopic appearance

- Solid, spherical polymer particles in water
- Particle diameter: 50 – 5,000 nm
- Solids content up to 74% (normally 50%)
- Over 1014 – 1019 particles per liter of dispersion
- Stabillization system (anionic, cationic or steric)

Dispersions can be produced at atmospheric pressure or under pressure. Atmospheric pressure polymerization takes place under normal conditions. A typical example is the production of styrene-acrylate and VAC-VeoVa dispersions. Pressurized polymerization is much more complicated and costly. Not every manufacturer of dispersions and dispersible polymer powders in the world has such facilities and is therefore capable of producing ethylene-based polymer dispersions.



Production of VAE Dispersions

Product Search

> Dispersions