

Modern Material Preparation for the Ceramic Industry: Tried and tested Solutions suitable for processing Slurries and Suspensions

Various techniques are available for the production of suspensions and emulsions. The machines used for these mechanical dispersing techniques are generally only designed for a certain dispersion viscosity range, and the processing times are long. EIRICH dispersing technology is different. It can be used to process a free choice of viscosity ranges (and consistencies), and this within processing times of just minutes. EIRICH dispersing mixers, which are now also known as MixSolvers[®], have been in use for decades in many industries. They are used to process e.g. coating pigments for paper manufacturing, microsilica or pigment suspensions, road marking compounds, printer toner, lithium-ion compounds for rechargeable batteries and spray slip/casting slip e.g. for tiles, sanitary ceramics and technical ceramics, such as dispersions for film casting processes.

For manufacturers of technical ceramics, a special property of the MixSolver[®] is of particular interest: By virtue of the system, upscaling is very straightforward. This is important because the production process is normally preceded by the development of the formulation in the laboratory. Thus, MixSolvers[®] are in use in many research institutions and universities, taking advantage of the fact that a process developed for new products can be easily upscaled from a laboratory mixer to a production mixer. In addition, both intrinsically viscous (shear-thinning) and dilatant (shear-thickening) suspensions can be reproducibly manufactured. Here, the purity of the material is preserved, as contamination with abrasion from the parts that come into contact with product is prevented through the use of corresponding linings and armor coating.