

# UIC Process Development Center in China

## Professional Thin Film and Short Path Distillation Laboratory

### Trial Test

- Trial tests of short path distillation, thin film evaporation and fractional distillation using wiped film evaporator as reboiler.
- Determination of the general feasibility.
- Determination of process parameters required for toll distillation.
- Determination of achievable product quality and yields.
- Monitoring of product properties during distillation (foaming, fouling etc.)
- Required raw material quantities about 1-3 kg.

### Toll Distillation

- The ability of a toll distillation campaign can reach to hundreds of kilograms of crude material.
- Toll distillation performed by a professional team.
- Provide products for the market development of the client's new products
- Accumulate proprietary processes for the client's new products and improve the quality of existing products

### Pilot Test

- High-end pilot short path distillation plant made by UIC Germany, using various kind of wiper rotors applying to different applications.
- The scale of industrial facilities can be determined through pilot testing.
- Final determination of process parameters.
- Identifying and confirming the achievable product quality and yields.
- Determination of design parameters for industrial distillation system.
- Verification of the results of the laboratory tests under real process conditions.
- Around 100 kg raw material needed for a pilot testing.

### Analytatics

- Real-time detection can be carried out to obtain analysis results of the samples collected during the process, providing data to support subsequent process adjustments
- Headspace gas chromatography with autosampler
- Rotational viscometers
- Determination of color index by means of colorimeters
- Aqueous and non-aqueous titrations with automatic titration systems
- Water determination according to Karl Fischer (coulometric method)

