

PEL PhysPack



Calculations are an essential part of a process engineer's job. Undetected errors in calculations can result in poor design. Errors picked up late in design result in delays or costly modifications if equipment is installed.

Knowing the physical properties of the fluids in a process is essential for any process or design analysis.

Some physical properties for single component streams are available from open sources such as the internet, but these are normally for very specific temperatures and pressures and are not always reliably referenced. These sources do not provide information for other process conditions or multicomponent mixtures. Engineers using these sources have to rely on correlations and approximations to determine the physical properties they require.

Having easy and reliable access to physical properties of mixtures at realistic design conditions leads to more accurate process calculations and saves calculations and frees up engineers' valuable time. PhysPack is part of the PEL software from TÜV Rheinland.

PEL is a collection of software tools that enables engineers to carry out their day-to-day tasks more efficiently and reliably. The software has been developed by experienced process engineers for over thirty years and is constantly being developed and improved.

WHAT WE OFFER

PhysPack is an easy-to-use database of physical properties, combined with a powerful calculation engine. You can quickly obtain a diverse range of information both numerically and graphically, for either single phase or multiphase equilibrium and across a wide range of temperatures and pressures. PhysPack calculates and analyses the physical properties of mixtures, pure components and aqueous solutions.

Choose from over 1,500 components and instantly view its constant properties, together with the liquid, vapour, and solid properties over a range of temperatures and pressures.

KEY FEATURES

- For aqueous solutions, view properties over a range of concentrations and temperatures
- Specify mixtures using either mass or molar units
- Over 50 methods to model the vapour liquid equilibrium
- Performs liquid and vapour liquid equilibrium calculations
- Calculations available include phase envelopes and critical point, binary plots and azeotropes
- Reports liquid and vapour phase split and compositions for multiphase streams
- Performs isothermal, isenthalpic, isentropic and isochoric flashes
- Tailor the output to your own requirements by specifying ranges and units
- Results displayed in an easy-to-read spreadsheet complete with quality assurance data for each point and phase composition data for each of the components
- Graphical displays with links to Microsoft Excel for capturing the output
- Define petroleum fractions based on distillation curves or boiling points

BENEFITS

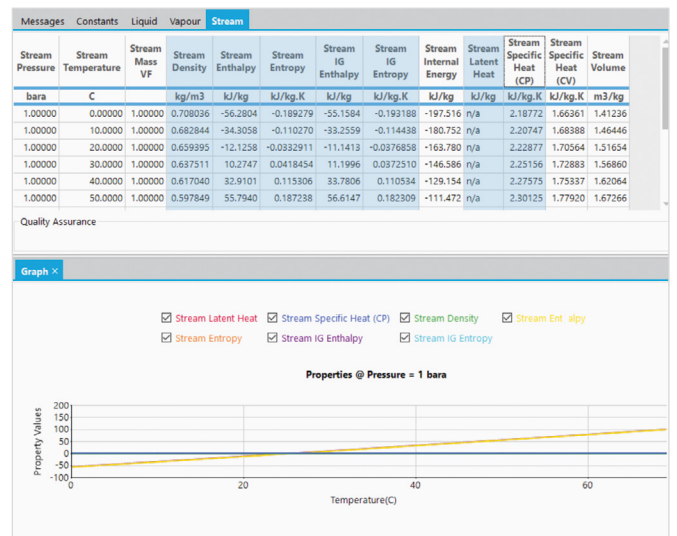
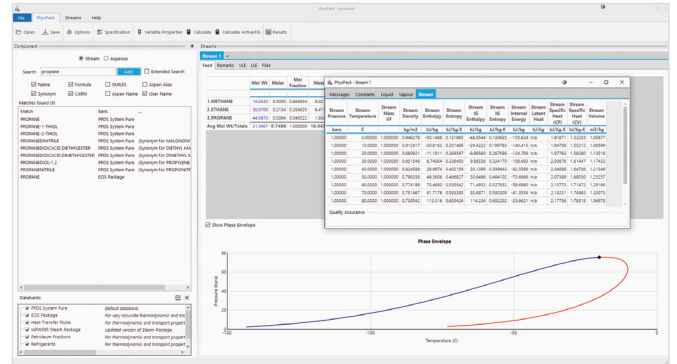
- Reliable data – essential for the safe design of processes and equipment
- Suitable for both expert and less experienced users
- Simplifies chemical process design
- Powerful visual displays
- Documented records for audit
- Can be transferred in to other PEL applications
- Saves time by giving rapid answers to required data

WHY TÜV RHEINLAND?

TÜV Rheinland has a broad range of process engineering specialists, with many years practical experience in all sectors of the process industries. Many of our engineers and consultants come from an operational background and use their experience to make pragmatic technical judgements when solving process issues.

PEL software has been helping process engineers for over thirty years. It has a proven track record providing relevant and reliable engineering tools. The software is extremely easy to use and you can be up and running within minutes. We are constantly developing our software to improve functionality and usability.

Our range of training documentation includes a 60 second Guide, reference guide and full user manual to ensure that you get the most out of the software. We pride ourselves on the quality of the support service we offer. The licence agreement provides unlimited hotline support via email and phone. We can also provide training sessions at our offices or on-site.



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