Types of Thermophysical Properties in Hysys Hysys utilizes a comprehensive database of thermophysical properties to accurately model industrial processes. This, in turn, supports optimized design, improved operational efficiency, and enhanced safety across a wide range of industrial applications. By leveraging this robust database of intrinsic, temperature-dependent, and other specialized thermophysical properties, Hysys enables engineers to build highly accurate process models. These fundamental properties are essential for determining phase behavior, mixture compositions, and other core aspects of process simulations. The ability to accurately predict these temperature-dependent properties is crucial, as changes in operating conditions can significantly impact process performance, equipment sizing, and energy requirements. This includes common parameters like density, viscosity, thermal conductivity, and heat capacity.