

Media

Media is the fluid the sealing device is sealing in or out of an assembly. Sealing devices are typically used to seal gases and/or liquids. Occasionally, a sealing device may be required to contain media in a solid form, however, many of these applications are in slurry form (a liquid and solid mixture). When choosing a product to seal a particular media, it is important to consider not only chemical compatibility but also emissions compliance.

For example, a sealing device that works very well for sealing liquids may be chemically compatible with certain gases but may not provide the necessary level of permeation resistance.

When dealing with refining applications, the two most common hydrocarbons encountered are the aliphatic and aromatic.

Aromatic hydrocarbons, such as toluene, benzene, and xylene, are more chemically aggressive than aliphatic hydrocarbons, such as petroleum oil, kerosene, and diesel fuel. Therefore, aromatic hydrocarbons usually require more chemically-resistant sealing devices made from PTFE, graphite, or metal, where aliphatic hydrocarbons can be sealed with sealing devices constructed from fiber (I.E. aramid) and elastomers (nitrile or fluoroelastomers).

When dealing with strong oxidizers, alkalines, and acids, it is very important to understand the chemicals involved and their concentrations.

pH Scale

The pH scale is used to measure the hydrogen concentration of a chemical. As you can see from the chart shown, common household products that are used every day can, at the right concentration, have a similar pH rating to hazardous chemicals used throughout industry.

