



## What Is Polarized Refrigerant Oil

Polarized Refrigerant Oil is the technology, especially developed for air-conditioning and refrigeration compressors, which forms a boundary film on metal parts and provides lubrication while protecting parts from friction degradation. The Polarized Refrigerant Oil forms a microscopic chemical layer, without the introduction of solid particles, therefore saves energy and equipment by increasing the efficiency of heat exchange systems and reducing equipment wear.

Although there are many types of refrigerant oils on the market, the Federal Technology Alert deals with a specific type of special refrigerant oils, a Polarized Refrigerant Oil, designed to improve the efficiency of heat exchangers in air-conditioners, chillers, heat pumps, and refrigeration systems, in addition to increasing the lubricity of refrigerant oil and reducing wear on compressor parts. Its unique formulation distinguishes it from standard refrigerant oils.

## What Is XLPP PRO

XLPP PRO is a blend of synthetic refrigeration oil and a "Polarized Refrigerant Oil." When XLPP PRO is added to refrigeration or air-conditioning systems, it increases efficiency and protects internal parts, by means of a magnetic charge. Therefore, it has an attraction for metal surfaces — but it's not actually bound or attached to them. Instead, it moves along with the refrigerant flow, maintaining contact with the metal surfaces due to that magnetic attraction. It also protects the moving parts in a compressor by dissipating heat, and by maintaining its position on bearings during the off cycle, unlike regular lubricants that run off. By staying put on the bearings, XLPP PRO prevents metal to metal contact during re-start.

## Purpose of XLPP PRO

The primary purpose of XLPP PRO is to improve the efficiency of air conditioners, chillers, and refrigeration systems, thereby reducing the cost to operate. Independent research shows that lubricant build-up on your refrigeration system's internal surfaces can highly degrade its performance thus preventing it from transferring heat increasing pressure drops, elevating boiling points and reducing its latent heat capacity. XLPP PRO has an "activated polar molecule" that "seeks out" metal parts, displaces carbon, contaminants and stagnant oil buildup in the condenser and evaporator, and then leaves a microscopic chemical layer, without the introduction of solid particles. This layer provides lubrication greater than the refrigerant oil alone, which reduces the wear factor when the system cycles on and off. XLPP PRO increases the lubricating ability of the refrigerant oil, displaces the buildup of oil in the condenser and evaporator, thereby restoring the systems ability to transfer heat.