SPECTROLINE®
HVAC/R

COOLSEAL™

TECHNICAL BULLETIN #100

The challenge of addressing a cooling system refrigerant leak has been a topic of concern within recent years. A leaking system can have many detrimental effects including: cost of lost refrigerant, environmental impact, increased energy consumption and potential system failure. The best practice remains a "find it, fix it, or replace it" policy. However, using a sealant product can often assist between when a defective component is discovered until the point where it is repaired or replaced.

Spectronics Corporation Cool Seal

Cool Seal is a proprietary blend of polymer-free, non-flammable, and non-carcinogenic additives that seals micro leaks caused from pitting, corrosion, loosened fittings or abrasion. When Cool Seal is added to a leaking system, sealant coagulates at a leak site where there is a pressure or temperature differential. Cool Seal forms a pliable web-like seal, and has been proven safe for cooling systems, recovery units, technician equipment, valves, manifolds, access ports, etc.

Injection Methods

Typically, a variety of injection methods are used for sealants such as; plastic syringes, direct injection, and aerosol cans. These offer disadvantages that may require overcoming internal pressures, employing the use of manifolds, addition of refrigerant, or expensive disposable hardware. Cool Seal is available in several easy injection options based on varying applications including; multi-dose disposable cartridges, bottles, and syringes. Most of these methods are engineered for use with high pressure systems.

COOLSEAL™ A/C Leak Sealer

- **Non-polymer**, oil-soluble formula
- Non-oxygenated activation
- Not activated by moisture
- Safe for AC&R systems
- Safe for contractor owned tools & equipment
- Non-hazardous formula

Polymer Type Sealants

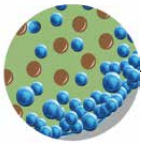
- Activated by moisture
- Oxygen activated
- Can damage AC&R systems
- Can damage contractor owned tools & equipment
- Exposure to sealant harmful
- May contain flammable liquids

Polymer Free

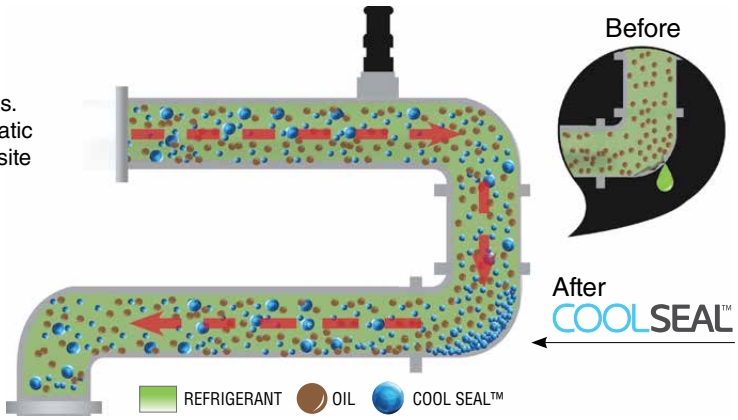
Cool Seal is unique in that it is a sealant, that is polymer free. This helps maintain the integrity of the system. Many different types of sealant products are available, including several that are polymer forming. Once a leak has occurred, polymer sealants react with moisture and/or air to form a hard, permanent seal. A risk of these types of products is that they may form hardened polymeric materials internally which can cause plugged hoses, coils, or expansion devices. Several of these products are also highly flammable, toxic and have shipping and handling concerns.

HOW IT WORKS

COOLSEAL™ is a proprietary blend of lubricants and additives. When the sealant is exposed to an environment where there is a dramatic drop in pressure and temperature, a seal will begin to form at the leak site until it is fully sealed.



Once injected into the system, it **LOCATES** and **SEALS** micro leaks formed by pitting, corrosion, loosened fittings or abrasion.



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