

GLOSEAL™

Sealant with Fluorescent Dye

- ▶ **2-in-1** Powerful Sealant with Premium Dye
- ▶ Non-Polymer Sealant and Solvent Free Dye
- ▶ Sealant **repairs** hidden **micro-leaks** and stops deterioration from the inside
- ▶ **Concentrated OEM-Grade** dye formula, ensures all leaks are found
- ▶ **Perfect for preventative maintenance** – Scan the system with UV light to reveal new leaks
- ▶ **Works for you 24/7** – Continuous ongoing sealing and leak detection
- ▶ Can be used in any **HVAC&R** System
- ▶ Compatible with all Refrigerants, Oil, Metal and Materials



PREMIUM SEALANT

+ POWERFUL DYE

1. Seal Micro & Difficult to Find Leaks →

2. Find & Fix Larger Leaks →

3. 24/7 Ongoing Sealing + Leak Detection

THE POWER OF GLOSEAL™

OEM-GRADE
Fluorescent Dye

2-IN-1
Solution

COMPATIBLE
with All Refrigerants & Oil

POWERFUL & SAFE
Non-Polymer Sealant,
Not Activated by Air or Moisture

24/7
Performance

EASY & QUICK
Delivery Method in
any HVAC&R System



SEALANT WITH FLUORESCENT DYE

Q&A

1 What is GLOSEAL™?

GLOSEAL™ combines high quality AC&R “System Leak Sealant” - Cool Seal™ with Fluorescent Dye, for a powerful and safe system additive. GLOSEAL™ seals micro-leak and pinpoints the exact location of all bigger leaks and with one quick installation for a 2-in-1 leak solution.

2 Why use a A/C Leak Sealant & Dye product?

A leaking system can have many detrimental effects including cost of lost refrigerant, food spoilage, environmental impact, increased energy consumption and potential system failure. The best practice remains a “fix it, find it, or replace it” policy. However, using a A/C Sealant + Dye product can often assist between when a defective component is discovered until the point where it is repaired or replaced.

3 Why is dye concentration important?

Dye fluorescence is dependent on the ratio of fluorescent material to carrier oil. Poor performing dyes typically have low levels of fluorescent material. Simply put, poor dyes lack the concentration necessary to provide an effective fluorescent response. Spectrolin® dyes are concentrated and co-solvent free which means they can fluoresce all leak areas brightly and not create internal damage to components.

4 What does it mean to be non-polymer?

Non-polymer sealants form a seal without the activation of moisture or oxygen. Making it safer to use and less risk of compromising the integrity of the system.

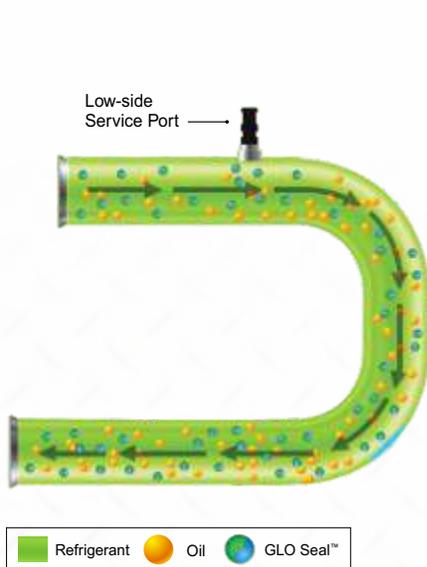
Whereas the risk of polymer sealant products is that they react with moisture and/or air which can cause plugged hoses, coils, or expansion devices. Polymer products are also highly flammable, toxic and have shipping and handling concerns.



5

How GLOSEAL™ Works?

When GLOSEAL™ is added to a leaking system, the sealant coagulates at a leak site where there is a pressure or temperature differential. GLOSEAL™ forms a pliable web-like seal, then continues to collect around the outer perimeter of the leak site until it is fully sealed. At the same time, the dye is circulating with the refrigerant and will escape through larger leak sites.



1. Seal Micro & Difficult to Find Leaks

The SEAL in GLOSEAL™ concentrated dye finds the exact location of all internal micro-leaks and repairs the same from inside.

2. Find & Fix Larger Leaks

Scan the system with an UV Torch to find leaks not repaired by Step 1. The GLO part in GLOSEAL™ concentrated dye will glow brightly under UV Light to show you the larger leaks. Make an external repair of the same.

3. 24/7 Ongoing Sealant + Leak Detect

Small, hard-to-find leaks hurt system performance and will eventually lead to total compressor burnout. Have peace of mind as GLOSEAL™ works for you 24/7 for continual leak detection and ongoing sealing! Scan the system periodically to find new larger leaks. GLOSEAL™ can remain safely in the system.

When the system is scanned with a UV leak detection lamp the leak will glow brightly. Scan the system periodically to find new leaks. Small, hard-to-find leaks hurt system performance and will eventually lead to total compressor burnout. Both sealant and dye can remain safely indefinitely, for 24/7 continual ongoing sealing and leak detection .

6

Will GLOSEAL™ harm the system?

No, GLOSEAL™ is formulated with co-solvent free dye and a non-polymer, oil-soluble sealant formula that will not form clogs or create buildup while circulating the system. It is compatible with all popular refrigerants and oils and can remain safely in the system to help protect against future leaks. It has been proven safe for cooling systems, recovery units, technician equipment, valves, manifolds, access ports, etc.

7

Does GLOSEAL™ perform in the liquid or vapor phase of the refrigeration cycle?

GLOSEAL™ is effective in both the high and low side of liquid and vapor lines. The mechanism of how it works in either the liquid or vapor line is essentially identical. Temperature changes from expansion cause the paraffinic portion of the sealant to fall out of solution, which then collects around the leak site.

8

How does GLOSEAL™ travel to the leak site?

LIQUID LINES: In refrigerants where the GLOSEAL™ is miscible (HCFCs or Hcs) the sealant travels as a homogeneous mixture until it leaks out, whereupon the liquid refrigerant flashes off, leaving the GLO Seal-oil mixture at the leak site. GLOSEAL™ will not cause problems in the capillaries because of high flow rates that prevent it from collecting at the expansion. However, the lower flow rates from micro-sized leaks allow GLOSEAL™ to effectively treat the leak. The cooling effect from the pressure drop across the micro leaks allow the sealant to floc out and collect. This is the longest seal time, due to the amount of sealant flowing into the leak is minimal as it is dissolved all throughout the entire liquid line.

In refrigerants where the GLOSEAL™ is immiscible (HFCs) the sealant travels as individual droplets, or as a thin coating on the interior of the line until it leaks out. At that time, it acts exactly like it would in the miscible case. Sealing time will be shorter in these systems, due to the fact that the amount of sealant flowing into the leak is maximized.

VAPOR LINES: The sealant miscibility has little effect now that the liquid refrigerant boiled off and the sealant-oil mixture is traveling on the interior surfaces of the lines and evaporator. As is the case with the immiscible refrigerants, the sealant-oil mixture will already beat the leak site, and as the flow is significantly cooler with less pressure, the sealant should floc out faster and seal more quickly.

9 After a leak is sealed, will fluorescent dye show through with a UV flashlight?

The sealant part of **GLOSEAL™** will stop micro leaks. The small amount of dye that may escape along with the sealant would be insufficient to become visible. Technicians can spray GLO-AWAY Plus on a leak stein question to remove dye and rescan after some time to see if it has left over residue or not.

10 What are the 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, additional refrigerant, or expensive disposable hardware.

GLOSEAL™ STICK CAPSULE currently offered is one of the easiest methods of injecting dye into a system.

Conclusion:

It's an economical alternative to expensive replacement parts and can add years to older, out-of-warranty AC&R systems leaking small amounts of refrigerant.

It works in all popular AC&R systems, including high-pressure R-410A systems – and can be injected with the unit off or running.

GLOSEAL™ is available in several easy injection options and sizes, engineered for use with high pressure systems.

GLOSEAL™ is a 2-in-1 hassle-free way to seal refrigerant leaks in condensers, evaporators, O-rings, and hoses.

GLOSEAL™ is a non-polymer, oil-soluble formula safe for all AC&R system components and recovery equipment.

GLOSEAL™ is non-flammable, has no storage-related safety issues, and no need for system pump down.

As an added benefit, both the sealant & UV dye can remain safely in the system to guard against future leaks.

GLOSEAL™ Sealant Stick Capsule + Fluorescent Dye



SPE-GSMDS

0.3 oz (10 ml) stick capsule prefilled with **GLOSEAL™** Sealant + Fluorescent Dye

Treats up to:
2.5 tons (8.75 kW) of cooling



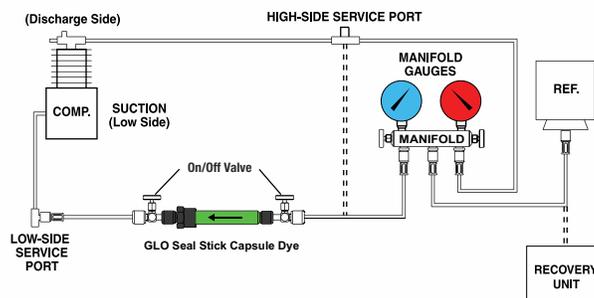
SPE-GSDS

0.5 oz (15 ml) stick capsule prefilled with **GLOSEAL™** Sealant + Fluorescent Dye

Treats up to:
3.5 tons (12.3 kW) of cooling

Stick Capsule Injection Method

Connection:



Tools Required

UV Torch and Yellow Glasses to find leaks not internally sealed by the **GLOSEAL™**.