Optic Clear Solutions	**KleProtect® Anti-Fouling**	Catalog Listing KleProtect® ***AF***
Drawn by: SamT	**Revision:** A **Date:** 28 Sept 26	**Scale:** None
Tolerances: See Figure	**Approvals:**	**Sheet** 1 **of** 3
Optic Clear Solutions Coatings Division Weiser, Idaho 83672		

Product Overview

Product Name: KleProtect® ***AF***
Type: Protective Coating
Functionality: Anti-fouling
Key Component: Functionalized Graphene Nanoparticles

Product Description

In today's demanding environments, traditional anti-fouling control methods often fall short—leading to equipment damage, increased maintenance costs, and operational downtime. That's why we've developed a next-generation solvent system enhanced with **functionalized graphene particles**, designed to offer unmatched protection against both fouling.

- Our graphene dispersed uniformly within the paint matrix, creating a highly interconnected network that enhances both mechanical integrity and surface performance.
- The synergy between graphene and the surrounding paint system enables a stable, one-part formulation that balances performance and ease of application.

This advanced solvent formulation is engineered delivers high-performance barrier properties, extended protection cycles, and superior adhesion resistance, making it suitable for industrial, marine, and infrastructure applications.

The result is a finish that not only lasts longer but also maintains its appearance and performance over time. Best of all, this innovation comes in a simple, one-part system that's easy to apply, delivering professional-grade protection without complicated processes.

Key Benefits & Features

Feature	Description
Anti-Fouling	The solvent's unique formulation prevents the adhesion of biological and chemical contaminants - extending service life and maintaining operational efficiency
Cutting-Edge Nanotechnology	By leveraging functionalized graphene at the nanoscale, this solvent delivers performance beyond conventional inhibitors - providing intelligent, self-passivating protection.
High Thermal & Chemical Stability	Maintains protective properties under high temperatures over 330°F and aggressive chemical exposures.
Surface Compatibility	Our solvent can be used across a wide range of substrates including steel, aluminum, and polymer-coated surfaces—ideal for marine, industrial, and infrastructure applications
Eco-Friendly Performance	Reduces need for frequent reapplication; low VOC. KleProtect is non-volatile. It is INERT solvent
Extended Service Life	Enhances operational uptime and reduces maintenance cycles in anti-fouling environments.

Applications

- **Marine structures & vessels** (hulls, ballast tanks, offshore platforms)
- **Transportation – Train, Truck & Construction Equipments**
- **Aerospace**
- **Oil & gas pipelines and facilities**
- **Industrial equipment exposed to moisture or chemicals**
- **Infrastructure (bridges, coastal installations)**
- **Protective coatings or primers** in harsh environments
- **Airless spray systems and manual brush or roller methods**

Technical Specifications

Property	Value / Range	Test Method
Appearance	Brown	Fully cured
Graphene Content	8.34% wt.	Internal method
Flash Point	34°C	ASTM D93/EPA 1010
Anti Fouling	25-069536-PDA	AFS/CONF/26 via ABS Certification (Oct. 2030)
VOC Content	352 g/L	ASTM D2369
Volatile Organic	Negative	EPA 8260D
Vapor Pressure	1.2 psi	ASTM D323
Bond & Peel	Minimum 500N/cm^2	Laboratory Testing
Impact	+ 100 lb/in	ASTM D2794
Shelf Life	6 months	—

Instructions for Use

- **Surface Preparation:** Ensure surface is clean, dry, and free from contaminants.
- **Application:** Apply via brush, spray, or dip-coating depending on system.
- **Handling or 2nd Coat:** Minimum 90 min. @ ambient temperature (70°F/ 21°C)
- **Curing Time:** 24 hours @ ambient temperature (70°F/ 21°C) – fully cured
- **Coverage:** Approximately 8-10 m²/L depending on surface porosity

---

Storage & Handling

- Store in a cool, dry place below 30°C.
- Avoid direct sunlight and moisture exposure.
- Refer to SDS for safety and handling guidelines.