

## TECHNICAL DATA SHEET

# CARBONSEAL-FR™

### Liquid Sealant

**Carbenseal-FR™ Liquid Sealant** is a plural component, single package, reactive, high molecular weight polymer modified asphalt seal coat. **Carbenseal-FR™ Liquid Sealant** is designed to penetrate deep into pavement substrates where it permanently weather seals airport, street and highway apron surfaces. Product may be applied as a mineral filled sealer through spray, broom, or squeegee apparatus; also, may be applied as an un-filled coating through high volume equipment (distributor truck). Within as little as a few minutes after installation a tough but ductile, black satin surface permanently protects the underlying asphalt surface from tire wear, sun degradation and moisture. The high molecular weight and high softening point of this material prevent tracking or displacements by rolling traffic in the heat of the day. **Carbenseal-FR™ Liquid Sealant** is filled with an engineered hydrocarbon additive, which is provided as an emulsified, high molecular weight thermoplastic. It exhibits a high softening point (>160°F), good low temperature ductility and excellent hydrolytic stability; as well as superior adhesion to moist mineral surfaces. **Available – 55 gal drums, 250 gal totes, and bulk transfer**

#### ADVANTAGES:

- Jet fuel (Jet A thru JP-8) and Motor Vehicle Oil/lube resistant.
- Unique reactive chemicals attack natural metal oxides present in the exposed aggregate surface.
- Chemical resistance, rate of cure, final surface hardness and skid characteristics can be modified to meet local specifications.
- May cure in less than twenty (20) minutes, in optimal conditions, to a track free surface.
- Safe to handle and store.
- Near zero VOC; and odorless.
- High temperature, tire scuff resistant to power steering abuse
- Easy clean up with water.
- Cured container residue safe for municipal landfill

#### USES:

- Seals asphalt pavement surfaces against sun and moisture damage.
- Rejuvenate oxidized asphalt roofing felts.
- Seals all concrete surfaces against water absorption into micro-fissures.

#### TRANSPORTATION:

Not D.O.T. Regulated

#### PHYSICAL PROPERTIES:

Water Absorption	< 4%	ASTM D-570
Weight per gallon	9.0 – 12.0 lbs/gallon	ASTM D-1475
Cured Film thickness / gal / 100 s.f.	9.0 – 11.0 mils	ASTM C-836
Percent Solids	57 - 70	
Fuel Resistance	Pass	ASTM D2939
Wet Track Abrasion (6 Day)	<30 grams / s.f.	ISSA A-105, T-100
VOC	< 10 grams / liter	BAAQMD Vol 3 Lab 22

#### APPLICATION:

Clean all contaminants from surfaces to be sealed by; brooming, blowing, power washing, scraping, degreasing, wire brushing, etc. The surface to be sealed shall be free of moisture. If moisture is suspected, spray a very thin coating of **Carbenseal-FR™ Liquid Sealant** as a Primer over the entire area to be sealed, after cleaning the surface, then allow to sit for at least two hours to drive out deep latent moisture. **DO NOT** build up the Primer as this may trap moisture. A “very thin” coat is 0.04 gallons per square yard. Normal application rate for mineral filled versions is 0.20 to 0.35 gallons per square yard; unfilled versions 0.08 to 0.20 gal./SY. Thicker cross sections will not necessarily improve wear; as chemical penetration is the strength. The rate of application depends on pavement conditions; surface texture, porosity and age of the asphalt.

**CAUTION: Carbenseal-FR™ Liquid Sealant** cures very quickly to an impermeable membrane. The black surface will cause the underlying substrate to rapidly rise in temperature. Expanding trapped rain or dew may blister the new **Carbenseal-FR™ Liquid Sealant**. Concrete substrates are particularly susceptible; metal and asphalt do not readily absorb moisture and therefore may not normally require priming. **DO NOT** allow traffic onto the Primer.

Dilute **Carbenseal-FR™ Liquid Sealant** by up to 30% by volume with potable water for mineral filled version. The un-filled version requires hot tap water up to a 100% cutback, then heat to between 100°F and 180°F. A single coat may achieve full protection but higher spread rates may be required as dictated by the surface porosity. Allow to fully cure before applying additional coats. Curing takes place in two distinct phases. The first is a rapid cure to a traffic ready state; the second is a substantial hardening of the surface by the persistent, exothermic crosslinking of the engineered reactive polymer chemistry. Under sunny conditions: the first phase takes less than sixty minutes, the second takes about two hours. Cool, cloudy conditions will take longer. **DO NOT** re-coat until the previous coat is fully cured.

*Immediately clean implements, including hoses, with cool water after application. Carbenseal-FR may crosslink if left standing in sun exposed spray hoses.*

#### STORAGE AND HANDLING:

- Do not allow to freeze prior to application.
- Do not thin or mix with any other products.
- Avoid prolonged skin contact.
- Keep containers tightly sealed when not in use.
- Do not take internally. Do not induce vomiting if swallowed--call a physician immediately.
- Store, handle and dispose per MSDS requirements.