

Technical Data

Guardian AE Asphalt Emulsion/Pavement Sealer Concentrate

DESCRIPTION: GemSeal[®] Guardian AE Concentrate is a premium modified-resin asphalt emulsion pavement sealer. GemSeal[®] Guardian AE weatherproofs asphalt surfaces, seals against penetration by water, oil and blocks the destructive drying action of the sun by forming a tough protective membrane with a deep black color. Guardian AE provides a cost effective measure to extend the service life of all asphalt surfaces.

FEATURES:

- Water based, Low VOC-less than 50 grams per liter. Fortified with proprietary compounds for added durability and longevity.
- Formulated specifically to protect all asphalt surfaces including commercial and residential parking areas and driveways.
- Guardian AE, manufactured in our state-of-the-art, high shear colloid mill process, provides a uniform particle dispersion for a superior molecular bond to asphalt surfaces.
- Weatherproofs and seals porous asphalt surfaces, preventing damaging effects of water penetration.
- Protects pavements from oxidation by forming a tough protective skin with a deep black color.
- Exhibits outstanding wear resistance utilizing a modified- resin asphalt.

PHYSICAL PROPERTIES:

| Property | Max. | Min. |
|-------------------------|------|------|
| Water (%) | 50 | 47 |
| Non-Volatile Solids (%) | 53 | 50 |
| Ash (%) | 42 | 30 |
| Sp. Gr. @ 77° | 1.20 | 1.13 |

APPLICATION STANDARDS:

GemSeal[®] Guardian AE meets the following standards listed below:

| ASTM D 140 | ASTM D 244 |
|-------------|------------|
| ASTM D 466 | ASTM D 529 |
| ASTM D 2939 | |

SURFACE PREPARATION:

Pavement surface must be sound, free of debris, vegetation, dust, oils, grease and detergent residues. Accumulations of petroleum deposits, tree sap and dirt should be scraped clean and treated with GemSeal®TarPrime.

SURFACE PREPARATION (cont.):

Narrow surface cracks should be filled with GemSeal[®] Pourable Crack Filler, GemSeal[®] Trowelable Crack Filler, or a suitable hotapplied joint sealant. Wide cracks, severely distressed, alligatored or deteriorated pavement surfaces should be repaired before sealcoating. New asphalt paving or repair patches should be allowed to cure for a minimum of 30 - 90 days at temperatures of 60°F or above before seal coating begins. New asphalt paving or repair patches should not show oil sheen or beading of water when 1 gallon of clean water is poured onto the surface.

MIX DESIGNS:

GemSeal[®] Guardian AE is a concentrate designed to be thoroughly blended with potable water, mineral aggregate and additives in specific proportions according to the mix designs described in the table below:

| GemSeal® Guardian AE | Water | Graded Aggregate ¹ | Latex ² Polymer |
|-------------------------|--------------------|----------------------------------|-------------------------------|
| (GAL) | (GAL) | (LB) | (GAL) |
| 100 | 25-30 ³ | 200-4004 | 1-2 |

- Mineral Aggregate Introduction of clean, washed, well graded, medium to fine silica or boiler slag mineral aggregate is recommended to provide added traction to the cured coating, in addition to filling hairline voids in the asphalt. 40-70 mesh aggregate size is recommended.
- 2. Latex Additives Field experience has shown that, for best performance, GemSeal[®] Guardian AE mix design should include the use of GemSeal[®] GuardFlex polymer fortifiers.
- 3. It is recommended that mix designs contain 25-30 gal. water per 100 gal GemSeal® Guardian AE. Water amounts may be adjusted within this range to achieve good application consistency, but mix designs containing in excess of 30 gal water are not recommended as curing and wear can be adversely affected.
- 4. Mix designs containing more than 400 lb. aggregate or more than 2 gal GemSeal[®] GuardFlex per 100 gal GemSeal[®] Guardian AE are not recommended.
- 5. Use only GemSeal polymer fortifiers specifically designed for Guardian AE. Do not use other additives. They are not chemically compatible with Guardian AE and will degrade the emulsion.



APPLICATION RATE:

Yield: 0.11-0.15 gal/sq yd (per coat) or 60-82 sq ft/gal (per coat)

| Pavement Use | Application Rate | Coats |
|------------------|------------------|-------|
| | gal/sq yd | |
| Low Traffic | 0.11 - 0.13 | 2 |
| Moderate Traffic | 0.11 - 0.15 | 2 |
| High Traffic | 0.11 - 0.15 | 3 |

APPLICATION:

GemSeal[®] Guardian AE can be applied using spray or mechanical squeegee equipment capable of controlled, uniform distribution of material conforming to mix designs and application rates specified. Material can also be applied with brush or rubber squeegee applicator designed for these products.

GemSeal[®] Guardian AE should be applied only when pavement and ambient temperatures are continuously above 50°F for at least 24 hours following application and no rain is forecast for that period. Allow adequate drying time between successive coats. Allow sealer to cure 24 hours after final coat before opening to traffic. Cooler temperatures (below 60°F) and/or high humidity, damp or overcast conditions will lengthen curing times.

Note: Sealcoating is not recommended for enclosed or permanently shaded parking areas such as underground parking garages.

Guardian AE Asphalt Emulsion Pavement Sealer Concentrate

PACKAGING:

Available in 55-gallon drums and tank truck up to 4,500 gallons.

SERVICE:

Timely service is available within 300-mile radius of our manufacturing facilities.

ATTENTION:

GemSeal® Guardian AE should be protected from freezing.

CAUTION:

Both surface and ambient temperature shall be a minimum of 50° F and rising during application. Do not apply if temperature is expected to drop below 50° F, or if rain is expected in the forecast within a 24 hour period.

MANUFACTURING & CUSTOMER SERVICE: Call (866) 264-8273 to find the nearest GemSeal location to purchase Guardian AE Pavement Sealer Concentrate.

GemSeal Pavement Products Corporate Headquarters: 3700 Arco Corporate Drive, Suite 425 Charlotte, NC 28273

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GemSeal Pavement Products warrants that for a period of one (1) year from date of purchase this product shall be free from manufacturing defects and shall meet or exceed performance standards listed in the technical data sheet for the product at the time of sale, if used as directed and within the stated shelf life. This Limited Warranty applies only if the product is stored, used, and applied over a properly prepared substrate in strict accordance with applicable specifications and instructions issued by GemSeal Pavement Products. The Limited Warranty will not apply if the product is altered, modified, or misused after it has left the control of GemSeal Pavement Products. GemSeal Pavement Products will not be responsible for defects caused by factors beyond its control, including but not limited to workmanship, application equipment, weather, acts of God, structural failure, condition or movement of substrate, improper additives, poor drainage, ponded water, improper maintenance, damage from snow removal equipment, and normal wear and tear. GemSeal Pavement Products does not warrant that the product or any method of use or application would be suitable for any particular site conditions.

All warranty claims must be submitted in writing, with proof of purchase, to the following address: 3700 Arco Corporate Drive, Suite 425, Charlotte, NC 28273. Unused portions of product must be returned upon request. Replacement of defective product or, at GemSeal Pavement Products' option, refund of the purchase price of defective product shall be the buyer's sole remedy under this Limited Warranty. In no event shall GemSeal Pavement Products be liable for any damages in excess of the purchase price of the defective product. This Limited Warranty does not cover labor costs for product application, replacement, or repair. GEMSEAL PAVEMENT PRODUCTS SHALL IN NO EVENT BE LIABLE FOR CONSEQUENTIAL, INCIDENTAL, OR SPECIAL DAMAGES, INCLUDING BUT NOT LIMITED TO DAMAGES FOR LOST SALES OR PROFITS, BUSINESS INTERRUPTION, DELAYS, PHYSICAL DAMAGE TO OTHER MATERIALS OR PROPERTY, OR LOSS OF USE OF PROPERTY.