

FOG SEALS



A fog seal is a light application of a slow-setting asphalt emulsion diluted with water and applied by a distributor. Fog seals cover small cracks and surface voids, reduce raveling, and enrich dry pavements. A fog seal is an inexpensive way to rejuvenate and seal pavement surfaces. Fog seals are often applied on a routine schedule (typically every three to five years) to prolong pavement life.

CONSTRUCTION PROCESS

Fog seals can be applied using conventional distributors and should be spread as evenly as possible to achieve optimum coverage and penetration of surface cracks. The rate of application depends on surface texture, dryness, and degree of cracking. The application rate of a fog seal ranges from 0.1 to 0.15 gallon per square yard (0.45–0.7 l/m²) of diluted emulsion. The emulsion and fog seals are typically diluted with water by 25 to 75%.

SITE SELECTION

Fog seals are best suited as a short-term maintenance or corrective measure. They can be used to buy time until a permanent solution can be applied. Since there is no aggregate used in a fog seal, their life span can be quite short—less than a year—under heavy traffic. If used on an active roadway it may be necessary to close

the road for four to six hours to allow the emulsion to cure. Fog seals can also be used in a corrective mode to darken pavements, seal pavements after rumble strips have been milled or reduce aggregate loss on chip seals.

BENEFITS

- Fog seals are an inexpensive way to cover large surface areas.
- The asphalt emulsion seals the pavement from water penetration.
- The treatment blackens pavement, adding differentiation to pavement lanes.
- The asphalt renews aged asphalt pavements that have become dry and brittle.
- The low viscosity material flows into cracks and surface voids.
- Fog seals can prevent damage to pavements placed in cold weather.
- Fog seals can be used in conjunction with chip seals to prevent or repair raveling, snow plow damage and darken the seal.
- Fog seals are the least expensive pavement preservation treatment to prolong pavement life and delay major maintenance or reconstruction.