

# RPE

## Rapid Penetrating Emulsion

Rapid penetrating emulsions (RPE) are asphalt emulsions specially formulated to penetrate pavement quickly and thoroughly to fill air voids. Unlike some seals that simply cover the surface of the road, RPE reduces permeability by penetrating into the pavement, which is critical to extending pavement life.



### THE PROCESS

RPE is a proactive preventative technology that fills air voids before they become a problem. It should be placed within two years of a pavement's life to impede oxidative aging. It is applied similarly to other emulsions, using an asphalt distributor, usually one equipped with fog nozzles.

### BENEFITS

- Quick curing and return to traffic
- Quick water resistance after placement
- Decreases permeability
- Maintains surface texture
- Full-width capabilities
- Improves thermoplastic striping adhesion

### ISSUES ADDRESSED

- Pavement permeability
- Oxidation
- Reduces the need for additional repairs, maintenance or repaving

### MATERIALS USED

- AMIGUARD™, RPE: A premium rapid penetrating emulsion produced by Asphalt Materials, Inc. AMIGUARD's key benefit is its penetrating, air-void-filling capability. Reduced surface tension allows it to absorb into the pavement quickly, getting drivers back on the road sooner.



Watch RPE being used in Dodge County, Wisconsin to extend the life of their roads.