

September 13, 2017

**Re: Additive Usage with Black Diamond Sealer in Cooler Weather**

**Dear Sir or Madam,**

GemSeal<sup>®</sup> Black Diamond Sealer is a premium petroleum-based emulsion pavement sealer, designed for application to asphalt pavement surfaces. GemSeal<sup>®</sup> Black Diamond Sealer 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. GemSeal<sup>®</sup> Black Diamond Sealer extends the service life and enhances the appearance to provide a cost effective preventive maintenance coating of asphalt surfaces.

The use of latex additives can improve the performance of the sealcoat. Latex additives contain polymers which enhance different properties within the sealer to improve durability. Different additive types may impact different properties, but generally the end result is a longer lasting sealcoat. Properties impacted include adhesion, cohesion, and viscosity. **Adhesion** is how well the sealer bonds to the pavement. **Cohesion** is the internal strength of the film itself, how well it holds itself together. **Viscosity** is a term used to describe how thick the sealer is. Some polymer types can improve water and or fuel / oil / solvent resistance of the sealcoat. Many polymers may impart some flexibility to the sealcoat film. The underlying pavement may expand and contract with changing temperature (expand when hot, contract when cold). There are latex additives that act like a drying agent, which helps accelerate the drying and cure time of the sealer.

In cooler weather, it sometimes can be harder for the sealer to adhere to the pavement. Also, cooler temperatures may slow the drying / curing process as it may take longer for water to evaporate out of the film. For a pavement sealer to work effectively, all residual water has to leave the film. Slower water evaporation from the film extends the time needed before opening to traffic, and in some cases leave some discoloration in the sealcoat.

To help improve sealcoat strength and drying, particularly in cooler weather, use 1 – 2% GemSeal<sup>®</sup> Guard Flex and 1 – 2% GemSeal<sup>®</sup> Rapid Set additives in GemSeal<sup>®</sup> Black Diamond Sealer.

Sincerely,

*Paul Raymond*

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