

MANUFACTURING EXCELLENCE

GemSeal uses precision colloid mills to manufacture all of its pavement sealers. Colloid milling is a continuous process which applies consistent, high-shear forces to create uniform particles for a stable, homogenous emulsion.

COLLOID VS. BATCH

Colloid Mill = Jet Engine

The colloid mill resembles a jet engine in its design, performance, and complexity. Raw materials are squeezed using pressure and sheared through tight tolerances of the mill's rotor and stator. Controlled pressures, temperatures, and flows deliver a homogenous pavement sealer with consistently sized particles. This creates a more stable emulsion for better performance in longevity and color consistency.



✓ Continuous process

√ High-shear forces

✓ Uniform particles

√ Homogenous emulsion

Batch System = Cake Mixer

A batch system is similar to a cake mixer, where conditions change throughout the process. At the beginning, temperatures can vary, liquid volume is relatively small, and there is no ability to create adequate pressure to enable better shear. At the end, the rising liquid level above the mixing blades reduces the ability of raw materials to blend. The result is a potentially unstable and less predictable product.



Varied process

✗ Low shear

Inconsistent particles

✗ Unstable and less predictable

THE RESULTS ARE REAL

In 60 years of manufacturing sealers, colloid milled sealers have shown better color uniformity, consistency, and performance from load to load when compared to batch-made sealers. No more guessing about quality when sealer arrives on your jobsite. With GemSeal, you can expect the best.