

SIP-1111™ is a biobased rejuvenator designed for cold-in-place recycling and foamed asphalt systems, improving foam expansion and half-life while reactivating aged RAP binder for better coating and performance without additional heat. By restoring maltene balance and enhancing workability, SIP-1111™ helps contractors achieve density targets, reduce hot asphalt demand, and stretch construction budgets—all while lowering fumes and emissions at the plant and in the field. The result is smoother compaction, improved  $\Delta T_c$  durability, and turn-key implementation that makes high-RAP roadways stronger, longer-lasting, and more sustainable.

### SIP 1111 CHARACTERISTICS

OXIRANE OXYGEN	2.6 %
IODINE VALUE	1.5%
ACID VALUE	0.5% max
COLOR (APHA)	150 max
MOISTURE	0.10 max
MOLECULAR WEIGHT (APPROX.)	1000
SPECIFIC GRAVITY	0.947
CAS NO.	8013-07-8

### PRODUCT USES:

- Foam expansion aid
- Compaction aid
- Hot mix additive
  - Cracking resistance
  - Rutting resistance
  - Aging resistance
  - $\Delta T_c$  Performance

### ADDITIVES PERFORMANCE:

Fayette County, IA paved a nearly 9 mile stretch using a CIR base grade. 5% SIP-1111 CIR was added to a PG52-34S base asphalt. The same performance was achieved using 2/3 less asphalt representing tremendous material costs and logistics savings!

### PACKAGING SIZE:

- 55-gallon Drums
- 275-gallon Tote
- Tanker (45,000 lbs.)
- Rail (185,000 lbs.)

### STORAGE AND HANDLING:

**Shelf Life:** 2 years with proper storage and handling.

**Materials for Construction:** Compatible with carbon steel, 304/316 stainless steels, polyethylene, PVC, CPVC. Temperature limits for non-metallic materials should be considered.

**Storage Conditions:** Ambient temperatures are ideal. Avoid prolonged storage above 180°F.

**Heating Methods:** Use low-pressure steam (<15 PSIG) or electric blanket heating. Keep surface contact temperature with SIP 1111 below 250°F.

**Temperature Tolerance:** Short-term exposure to 250°F is acceptable, but long-term exposure leads to polymerization.

**Pump Selection:** Centrifugal, gear, or diaphragm pumps suitable.

