



## Chemistry to Easily Maximize the Use of Recycled Asphalt Pavement (RAP)

Cecabase RWI is an additive used to improve the remobilization and characteristics of aged bitumen from RAP when recycled into the new mix and pavement. It facilitates higher RAP usage levels while improving asphalt mix performance by providing better workability and adhesion.

### APPLICATIONS

- ❖ Bitumen Paving

#### USE CECABASE RWI WHEN YOU NEED:

- ❖ Easier RAP utilization without performance problems.
- ❖ Better profitability
- ❖ Easier constructability using RAP.

### FEATURES

#### BETTER EXTRACTION AND BLENDING OF RAP BINDER

Chemically works to extract higher amounts of oxidized bitumen from the RAP, and binds extracted bitumen and virgin bitumen together faster for compatibility and homogeneity, resulting in consistently performing asphalt.

#### EASIER COMPACTION

Thanks to its unique, patented workability technology, Cecabase RWI allows easier laying and compaction, and better mat density with fewer roller passes.

#### BETTER LOW TEMPERATURE ASPHALT PERFORMANCE

Lowers critical cracking temperature of asphalt back to levels found in low-RAP mixes by durably softening the highly oxidized RAP.

#### SAVES MONEY

Enables higher RAP utilization and less virgin bitumen usage without construction or performance problems.

### COMPATIBILITY

#### BITUMENS

Compatible with most bitumens including those modified with styrene-butadiene-styrene (SBS), styrene-butadiene rubber (SBR), ethylene-vinyl acetate (EVA) polymers, ground tire rubber (GTR), polyphosphoric acid (PPA) and recycled asphalt shingles (RAS).

#### ANTI-STRIPPING AGENTS AND ADHESION PROMOTORS

Compatible with Cecabase<sup>®</sup>, AD-here<sup>®</sup>, NovaGrip<sup>®</sup> and KO-here<sup>®</sup> additives.

## USAGE RECOMMENDATIONS

### NEAT AND POLYMER-MODIFIED ASPHALT:

- The recommended dosage is dependent on RAP binder stiffness, amount of RAP and virgin binder grade. Further guidance for dosage is provided below.
- CLP/GHS Regulation:** In standard conditions, the product has no impact on the transportation and environmental classification of the bitumen or the mix.

### OPTIONS FOR ADDING CECABASE RWI TO ASPHALT:

- Add to bitumen storage tank and agitate mechanically or through pump circulation.
- Add at bitumen terminal by injecting into bitumen line as transport tanker is being charged.
- Add at asphalt mix plant by in-line injecting into the bitumen line (continuous plant) or weigh hopper (batch plant).
- Add at asphalt mix plant by spraying on the RAP just before mix production in order to enhance its effect.

## PHYSICAL CHARACTERISTICS

Property	Description	Method
Appearance, 25 °C (77 °F)	Liquid	IM 213
Flash Point, °C (°F)	> 110 (> 230)	IM 197
Solidification Point, °C (°F)	-12 (10.4)	IM 055
Density, 25 °C (77 °F)	0.874 (0.105 lb/gal)*	IM 190
Viscosity, 25 °C (77 °F)	46 cP*	IM 172
REACH	Compliant	

\*The density and viscosity data reported are typical and not specifications. Typical ranges for density values are  $\pm 2\%$ . Typical ranges for viscosity values are  $\pm 20\%$ .

### EXAMPLE OF USE

To produce HMA with 5.5% Bitumen 50/70 using 50% RAP with 5% Aged Bitumen (Pen.: 14 mm; R&B: 65 °C)

2 Options for 3% Added Binder:

- Bitumen 50/70 + 6.6% Cecabase RWI
- Bitumen 70/100 + 5% Cecabase RWI

## HANDLING AND STORAGE

Always handle Cecabase RWI in accordance with Safety Data Sheet (SDS) and Arkema-Road Science Additives Handling and Storage Guidelines. Avoid product contamination with other materials. Cecabase RWI can be stored in its original sealed package for at least one year. Recommended product handling temperature range is 10-50 °C (50-122 °F).

## AVAILABILITY

- Drums:** 175 kg (385.8 lb)
- IBC:** 850 kg (1,873.9 lb)

## TECHNICAL SUPPORT

To request additional product information, contact your regional Arkema-Road Science representative or visit [arkema.com](http://arkema.com).

Disclaimer - Please consult Arkema's disclaimer regarding the use of Arkema's products on <http://www.arkema.com/en/products/product-safety/disclaimer/index.html>.

### Cecabase RWI Impact on Aged Binder Characteristics

