

INVIGORATE[®] PLUS RE-BINDER is a VOC-free, bio-based polymeric emulsion derived from chemically modified soybean oil. The emulsion is specifically engineered to react and bind with the residual asphalt in RAP and the recycled asphalt aggregates to form a new low-volume asphalt pavement.

PRIMARY USES

Invigorate Plus re-binder is a topical emulsion applied to reclaimed asphalt pavement millings to react and form an asphalt pavement to create driveways, parking lots and low-volume roads. The target asphalt pavement's lifespan is approximately 5-10 years with the proper sub-base layers and maintenance of pavement.

PACKAGING

Available in 2000 lb. totes.

TYPICAL PROPERTIES		
PROPERTY	UNITS	ANALYSIS
DESCRIPTION		Modified soybean oil
APPEARANCE		Milky white to beige
MODIFIED SOYBEAN OIL	%	10-55
ODOR		No odor
VISCOSITY @ 25°C	cP	80-200
BIODEGREABLE		Yes
SHELF LIFE (IN BULK)		6-12 months (stored properly)
pH		Neutral
FREEZING POINT	°F	32.0
FLASH POINT	°F	None
SPECIFIC GRAVITY @ 25°C	g/mL	0.95-0.98
STORAGE TEMPERATURE	°F	36-110

PRODUCT USE

- 1. Surface preparation:** The asphalt millings should be spread evenly across the area that will be surfaced. Typically, the asphalt millings should be spread out in 3-4-inch lifts. (For example: 6-inch deep asphalt millings would use two 3-inch lifts). Using a skid steer, level out the millings to desired height and grade.
- 2. Application:** Invigorate Plus re-binder is diluted to 1-part Invigorate Plus and 5-parts water. The additional water helps with transporting the re-binder down into the RAP to bind and lock up the millings. Then the product is applied with a target application (coverage) rate of 1.2 gallons per square yard.
- 3. Compaction:** 30-60 minutes after topically applying the emulsified Invigorate Plus re-binder, a 5-ton or more compactor should be used to compact the saturated RAP millings.
- 4. Cure time:** The cure time of Invigorate Plus re-binder varies with temperature, sunlight and humidity. Invigorate Plus should only be applied at temperatures above 70°F (24°C), with 50% relative humidity and when it's partly cloudy to sunny. Do not apply when the RAP millings are wet.

Within 24 hours:

Drivable by truck and semi-truck, but aggregates are still loose.

2-4 days:

The material will begin to cure.

10+ days:

The material should be cured depending on weather.

GUIDELINES

- 1. Handling:** Before dispensing, mix Invigorate Plus re-binder with a clean recirculation pump or folding propeller mixer for 5-10 minutes to ensure a homogenous mixture is drawn off. If a hold tank is used, agitate the emulsion before use. Air agitation is not an acceptable form of agitation. Bubbling compressed air through Invigorate Plus may cause the emulsion to break. Do not mix Invigorate Plus with other chemicals as it could readily react. Store emulsified Invigorate Plus in a sealed container when not in use.
- 2. Storage:** Invigorate Plus re-binder in concentrate form has a shelf life of 6-12 months when stored and handled properly. The material should never be stored in sunlight and/or by a UV source, as the product will experience degradation or separation. Acceptable materials for storage containers include carbon steel, 304 or 316 stainless steels, polyethylene, PVC or CPVC. The material should never be allowed to freeze. The optimum storage temperature is between 60-110°F. Pumps used in Invigorate Plus service can include centrifugal, gear or diaphragm-type equipment.
- 3. Sewage disposal:** Contents may be disposed of according to local, state and federal regulations. To recycle completely emptied packages, contact Colorbiotics at [\(888\) 663-6980](tel:8886636980) or orders@colorbiotics.com.

RECYCLING TIPS

- Invigorate Plus residue can remain inside the container, but totes with fluids or debris will not be accepted.
- All totes must be closed with labels in place and valves, top fill, dust and fill port screw caps included.
- Store the tote in a safe and secure area where it will not get broken or dirty before you drop it off.
- Totes with debris on the outside of the container will not be accepted.
- If the cages and pallets are bent, broken or pierced the totes will not be accepted.