

**STATE OF OHIO
DEPARTMENT OF TRANSPORTATION
SUPPLEMENTAL SPECIFICATION 859**

Asphalt Concrete with Verglimit

July 19, 2002

859.01 Description

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859.01 Description. This work consists of constructing an asphalt concrete surface course of aggregate, Verglimit additive, and asphalt binder mixed in a central plant and spread and compacted on a prepared surface.

The requirements of 441 and 446 apply, except as modified by this specification.

859.02 Materials. Verglimit is a linseed oil-coated multi-component chemical deicer additive consisting of calcium chloride flakes and other chemicals.

Provide to the Engineer certified test data indicating the Verglimit does not contain any chemicals or solids that are not necessary for deicing properties or application of the Verglimit.

Use PG 64-22 binder.

Do not use reclaimed asphalt pavement.

859.03 Composition. Develop a Job Mix Formula (JMF) in according to 441.02, except as follows:

1. Ensure the JMF reflects the aggregate gradation prior to addition of the Verglimit.
2. Ensure the ratio between the percent passing the No. 200 (75µm) sieve and asphalt binder content does not exceed 1.7:1 by total weight of the mix.
3. Add Verglimit so that it comprises 5.5 percent of the mixture, by total weight.

4. Add Verglimit to the laboratory mix as the final component, ensuring that when added, the Verglimit is at room temperature.
5. Compact the test specimens using 50 blows on each side.
6. Ensure the JMF mixture has a minimum stability of 750 pounds (3336 N). Prepare the sample for testing using an oven or placing water bath. Prior to using a water bath, ensure specimens are placed in a sealed plastic bag.
7. Determine the JMF binder content at 2.5 percent air voids.

859.04 Mixing. Handle sacks of Verglimit with care, ensuring crushing of the material is kept to a minimum. Store Verglimit in a dry place and do not open it until immediately before it is added to the mix.

Mix asphalt concrete with Verglimit only in a batch plant. Add the Verglimit within 5 to 10 seconds after at least one-third of the asphalt cement has been added to the mix, ensuring that prior to its being added it is screened over a $\frac{3}{4}$ inch (19.0 mm) sieve. The following mixing systems may be used:

1. Funnel or conveyor belt directly into the pugmill.
2. Addition directly over the filler scale.

Auger systems are not permitted.

Ensure that mixing is sufficient to entirely coat the Verglimit.

859.05 Placing and Compaction. Ensure a Verglimit manufacturer's representative is present at all times.

Do not place Verglimit mix when the air or pavement surface temperature is less than 55° F (13° C).

Ensure the temperature of the mix behind the paver is at least 285° F (14° C).

Do not use water on the roller drums. Wiping raw linseed oil on the drums is permitted.

Construct longitudinal joints using a tack coat or infra-red heating of the joint to a width of 6 inches (150mm).

Seed the pavement surface with crushed screenings meeting 703.10 immediately after the finish roll. Apply screenings at an approximate rate of 2 pounds per square yard (1.085 kg/m²). Prevent marking the new mix with wheel tracks.

If tracking does occur, follow the manufacturer's recommendations. This may include, but not be limited to, closing the lane until the following morning, or power washing the pavement.

859.06 Acceptance. Obtain 5 cores for each day's production. Process the cores in accordance with 446.05, except as follows:

1. Do not use water to obtain the cores. Compressed air is allowed. After each core is cut, wrap it and seal it from moisture.
2. Obtain a loose sample of mix from the plant. Ensure the sample is wrapped and sealed for moisture and that its weight is 2.64 pounds (1200 grams) minimum.
3. Provide the cores and loose sample to the Laboratory. Ensure the samples are protected from moisture.
4. Base acceptance of the day's production using the following table:

Mean of cores (percent)	Pay Factor
98.0 or greater	0.94
95.0 to 97.9	1.00
93.0 to 94.9	0.88
Less than 93.0	Remove and replace

If any individual core is less than 93.0 percent, obtain a second core from the area in question. Seal the core as specified above, and send to the Laboratory for testing. Remove and replace the pavement area if the second core also less than 93.0 percent.

859.07 Basis of Payment. The Department will pay for accepted quantities at the contract price as follows which includes Verglimit additive, joint and edge sealing, and seeding surface with screenings, as follows:

Item	Unit	Description
859	Cubic Yard (Cubic Meter)	Asphalt Concrete with Verglimit