

# Specification for HEI-WAY Premium Material

**Pennsylvania Department of Transportation listed as HEI-WAY Premium Stockpile Permanent Patching Material and Bituminous Paving Course, FB-3 Modified in “Approved Construction Materials”, Bulletin 15, Miscellaneous Section.**

**DESCRIPTION.** This material is a plant-mixed bituminous stockpile mixture consisting of mineral aggregate coated with a bituminous liquid. It exhibits the following qualities:

- 1) The mixture is workable according to seasonal temperatures.
- 2) The mixture yields a durable permanent pavement.
- 3) The mixture is temperature stable, i.e. no drain down of the bitumen from the aggregate occurs in transit, placement, or in stockpile.
- 4) The mixture is thoroughly coated with bitumen.
- 5) The mixture does not strip when handled, stockpiled, or placed. The mixture passes a modified ASTM D1664 strip test.
- 6) The mixture does not require a tack coat for placement.
- 7) The mixture does not require a seal coat for at least four years.
- 8) The mixture performs satisfactorily in the field.

**MATERIALS.** The materials and their uses meet applicable requirements of the Pennsylvania Department of Transportation Form 408, Sections 703.2 and 401.2, add allow Bituminous Material asphalt cement.

Modify or use appropriate modifiers, if necessary, to obtain a mix which results in a completed bituminous mixture meeting the above performance criteria.

<u>Class of Material</u>	<u>Type of Material</u>	<u>Penetration Range</u>
AC	Asphalt Cement	100-220

Bituminous material asphalt cement is used throughout the year.

Aggregates meet the requirements of Section 703.2, Type A.

Furnish the Premium completed asphalt mixture within these gradation limits.

Composition of Mixture (total % by weight passing square sieve openings)

<u>Passing Sieve</u>	<u>Percent Passing</u>	
1/2"	100%	
3/8"	85-100%	
#4	40-100%	
#8	10-45%	change to 0-45%
#200	0-5%	

The minimum requirements for the percent residue of the bituminous material in the mixture are as follows:

Stone and Gravel	-	4.5%
Slag	-	5.5%

NOTE: The completed mixture will be furnished as specified above except the asphalt residue shall not be deficient by more than 0.5% from the above values and no individual test shall vary more than +/- 1.0%. No individual test for percent passing the #200 sieve shall exceed 5.4%.

The acceptance of the mixture shall be determined by Section 401.2(d), as applicable.

**CONSTRUCTION REQUIREMENTS.** All plants manufacturing mixtures of this specification shall be approved by the Department.

All mineral aggregates and bituminous materials are proportioned by weight or volume. The completed mixture shall be weatherproof. No emulsion runoff or leaching occurs. The completed mixture is stockable for extended periods of time (6 to 12 months), is fully serviceable when needed according to seasonality, and does not require retesting in the laboratory after 6 months to confirm performance and lab properties.

The temperature of the asphalt cement bituminous material, aggregate, and completed mixture are:

	<u>Temperature Range, Fahrenheit, °F</u>	
<u>Asphalt Cement</u>	<u>Aggregate</u>	<u>Mixture</u>
175 – 350	25-150	125 maximum

**PERFORMANCE.** Mixtures conforming to this specification are stockable, temperature stable, thoroughly coated, non-strippable mixtures that perform satisfactorily in the field that require no seal coat for at least 4 years after placement, and then only to limit possible spalling of the pavement structure.

**METHOD OF MEASUREMENT AND PAYMENT.** Per ton.