

**SECTION 420—BITUMINOUS WEARING COURSE ID-2 (STANDARD),
BITUMINOUS WEARING COURSE ID-2 (HEAVY DUTY),
BITUMINOUS WEARING COURSE ID-2, RPS (STANDARD),
AND BITUMINOUS WEARING COURSE ID-2, RPS (HEAVY DUTY)**

420.1 DESCRIPTION—This work is construction of plant-mixed bituminous concrete on a prepared surface.

420.2 MATERIAL—[Section 401.2](#) and as follows:

(a) Bituminous Material.

1. All Virgin Material Mix or Recycled Mix Containing 5% to 15% RAP.

- Asphalt Cement, Class PG 64-22—[Section 702](#).
- Asphalt Cement, Class PG 58-28 may be used instead of PG 64-22 in Districts 1-0, 2-0, 3-0, 4-0, 9-0, 10-0, 11-0, 12-0, and 5-0 (Monroe, Carbon and Schuylkill counties only) for standard bituminous mixtures.

(b) Aggregates.

1. Fine Aggregate. [Section 703.1](#). When combined with coarse aggregate, provide a gradation as specified in [Section 401, Table A](#).

2. Coarse Aggregate, Type A. Provide combined gradation with fine aggregate as specified in [Section 401, Table A](#).

(c) Filler. [Section 703.1\(c\)1](#). Do not use flyash in the heavy-duty bituminous mixtures.

(d) Mixture Composition.

1. Standard Bituminous Mixtures.

1.a Virgin Material Mix (Standard Construction). [Section 401.2\(e\)1](#)

1.b Virgin Material Mix (RPS Construction). [Section 401.2\(e\)](#)

2. Heavy Duty Bituminous Mixtures. [Section 401.2\(e\)](#), except as revised below. Add the following JMF requirements and production limits:

- Provide a fines (minus 75 μm (No. 200) sieve) to asphalt content ratio (F/A) between 0.6 and 1.2 in the JMF and between 0.6 and 1.35 during production.
- Compact Marshall specimens with 75 blows on each side.

Revise the following JMF requirements and production limits:

- Stability at 60 °C (140F), with a 100 mm (4-inch) test specimen, not less than 8900 N (2,000 pounds) for the JMF, and not less than 8000 N (1,800 pounds) during production.
- Flow value of not less than 6 or more than 16 with a 100 mm (4-inch) test specimen for the JMF and production limit.

- Percentage of unfilled voids to be 4.0% for the JMF and maintain 90% of the void test results within a range of 3% to 6% during production.
- Provide a minimum percent VMA (Voids in Mineral Aggregate) of 16.0 for the JMF and a minimum of 15.0% for 90% of the VMA test results during production.

420.3 CONSTRUCTION—

(a) Standard Bituminous Mixtures.

1. **Virgin Material Mix (Standard Construction).** [Section 401.3](#)
2. **RPS Construction.** [Section 409.3](#)
3. **Recycled Material Mix Containing 5% or More RAP.** [Section 401.3](#)

(b) **Weather Limitations.** [Section 401.3\(b\)](#). For heavy-duty bituminous mixtures, replace the paving time period limitations from November 1 and March 31 with the following:

Do not place wearing course from October 1 to March 31 in Districts 1-0, 2-0, 3-0, 4-0, 5-0 (Monroe and Carbon Counties only), 9-0 (Cambria and Somerset Counties), and 10-0; and from October 16 to March 31 in Districts 5-0 (except Monroe and Carbon Counties), 6-0, 8-0, 9-0 (except Cambria and Somerset Counties), 11-0, and 12-0. No exceptions to paving weather limitations will be allowed, unless directed in writing by the District Executive.

(h) **Spreading and Finishing.** [Section 401.3\(h\)](#). Add the following:

If underlying courses develop deficiencies, make corrections to the satisfaction of the Representative before placing the wearing course.

Place only one layer of the wearing course per day.

If the roadway is subjected to high temperatures and channelized traffic, do not place the wearing course until after completing all binder courses.

420.4 MEASUREMENT AND PAYMENT—

- (a) **Bituminous Wearing Course ID-2 (Standard).** Square Meter (Square Yard) or Tonne (Ton)
- (b) **Bituminous Wearing Course ID-2 (Heavy Duty).** Square Meter (Square Yard) or Tonne (Ton)
- (c) **Scratch Course (Standard).** Tonne (Ton)
- (d) **Scratch Course (Heavy Duty).** Tonne (Ton)
- (e) **Leveling Course (Standard).** Tonne (Ton)
- (f) **Leveling Course (Heavy Duty).** Tonne (Ton)
- (g) **Bituminous Wearing Course ID-2, RPS (Standard).** Tonne (Ton)
- (h) **Bituminous Wearing Course ID-2, RPS (Heavy Duty).** Tonne (Ton)