

- ITEM 402.03810118 MISCELLANEOUS PATCHING F1, HOT MIX ASPHALT**
- ITEM 402.03811118 PLANT PRODUCTION QUALITY ADJUSTMENT TO 402.03810118**
- ITEM 402.03820118 MISCELLANEOUS PATCHING F2, HOT MIX ASPHALT**
- ITEM 402.03821118 PLANT PRODUCTION QUALITY ADJUSTMENT TO 402.03820118**
- ITEM 402.03830118 MISCELLANEOUS PATCHING F3, HOT MIX ASPHALT**
- ITEM 402.03831118 PLANT PRODUCTION QUALITY ADJUSTMENT TO 402.03830118**
- ITEM 402.03890118 MISCELLANEOUS PATCHING F9, HOT MIX ASPHALT**
- ITEM 402.03891118 PLANT PRODUCTION QUALITY ADJUSTMENT TO 402.03890118**

The requirements of Section 401 - Plant Production and Section 402 - Hot mix Asphalt (HMA) Pavements shall apply except as modified below.

DESCRIPTION

This work shall consist of developing an HMA mixture for pothole patching, small pavement repairs, and paver placed patching.

MATERIALS

The materials and composition for Miscellaneous Patching mixtures shall meet the requirements specified in §401-2 and §402-2, Materials, except as noted herein.

**TABLE 1
COMPOSITION OF
MISCELLANEOUS PATCHING HOT MIX ASPHALT**

| Screen Sizes | General Limits % Passing ¹ | Job Mix Tolerance % ² |
|---|---|--|
| 12.5 mm | 100 | - |
| 9.5 mm | 95-100 | - |
| 6.3 mm | 90-100 | - |
| 4.75 mm | 77-85 | ±4 |
| 2.36 mm | 35-60 | ±6 |
| 1.18 mm | 24-50 | ±7 |
| 600 µm | 12-34 | ±7 |
| 300 µm | 6-22 | ±4 |
| 150 µm | 3-11 | ±3 |
| 75 µm | 2-6 | ±2 |
| Asphalt Content, % ^{3,4} | 6.0 – 8.0 | ±0.4 |
| Mixing and Placing Temperature Range °C | 120-165 | |

- NOTES:
1. All aggregate percentages are based on the total weight of the aggregate.
 2. In no case shall the job mix tolerance fall outside the general limits.
 3. The asphalt content is based on the total weight of the mix. When using slag aggregates in the mix, the asphalt content shall be increased accordingly, a minimum of 25 percent for an all slag mix.
 4. Use a Performance-Graded Binder (PG Binder) appropriate for the county in which the mix will be used, as specified in Table 6-4 of the Comprehensive Pavement Design Manual. The footnotes to Table 6-4 will not apply.

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Use Table 2, Pay Item Selection Criteria, to select the appropriate friction requirements for the location and type of use for the mixture.

**TABLE 2
PAY ITEM SELECTION CRITERIA**

| Use Type | Traffic Volume ² | Location ³ | Pay Items |
|---|-----------------------------|----------------------------|---|
| Paver-Placed Patching and Pavement Repairs greater than 3 meters in length ¹ | High | Downstate | 402.038101 18 M (Type F1 Conditions) |
| | | Upstate | 402.038201 18 M (Type F2 Conditions) |
| | Low | Downstate or Upstate | 402.038301 18 M (Type F3 Conditions) |
| Pothole Patching and Pavement Repairs 3 meters or less in length ¹ | High or Low | Upstate or Downstate | 402.038901 18 M (Type F9 Conditions) |

- NOTES:
1. Pavement Repairs lengths are measured in the longitudinal direction of the roadway.
 2. “High Volume” refers to 2- or 3-lane highways with design-year, two-way ADT over 8,000, or for more than three lanes with a two-way AADT over 13,000. Low Volume” refers to highways with lower volumes for the specified number of lanes.
 3. The City of New York and the surrounding counties of Dutchess, Nassau, Orange, Putnam, Rockland, Suffolk, and Westchester are referred to as “Downstate.” All other areas are referred to as “Upstate.”

A. Coarse Aggregate Type F1 Conditions

1. Limestone, dolomite, or a blend of the two having an acid-insoluble residue content of not less than 20.0%.
2. Sandstone, granite, chert, traprock, ore tailings, slag, or other similar noncarbonate materials.
3. Gravel or a natural or manufactured blend of the following types of materials: limestone, dolomite, gravel, sandstone, granite, chert, traprock, ore tailings, slag, or other similar materials, meeting the following requirement:

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Noncarbonate plus 3.2 mm particles must comprise a minimum of 30.0% of the total aggregate (by weight, with adjustments to equivalent volumes for materials of different specific gravities). Additionally, a minimum of 95.0% of plus 4.75 mm particles must be noncarbonate.

B. Coarse Aggregate Type F2 Conditions

1. Limestone, dolomite, or a blend of the two having an acid-insoluble residue content of not less than 20.0%.
2. Sandstone, granite, chert, traprock, ore tailings, slag, or other similar noncarbonate materials.
3. Gravel or a natural or manufactured blend of the following types of materials: limestone, dolomite, gravel, sandstone, granite, chert, traprock, ore tailings, slag, or other similar materials, meeting the following requirement:

Noncarbonate plus 3.2 mm particles must comprise a minimum of 10.0% of the total aggregate (by weight, with adjustments to equivalent volumes for materials of different specific gravities). Additionally, a minimum of 20.0% of plus 4.75 mm particles must be noncarbonate.

C. Coarse Aggregate Type F3 Conditions

1. Limestone or a blend of limestone and dolomite having an acid-insoluble residue content of not less than 20.0%.
2. Dolomite.
3. Sandstone, granite, chert, traprock, ore tailings, slag, or other similar noncarbonate materials.
4. Gravel or a natural or manufactured blend of the following types of materials: limestone, dolomite, gravel, sandstone, granite, chert, traprock, ore tailings, slag, or other similar materials, meeting the following requirement:

Noncarbonate plus 3.2 mm particles must comprise a minimum of 10.0% of the total aggregate (by weight, with adjustments to equivalent volumes for materials of different specific gravities). Additionally, a minimum of 20.0% of plus 4.75 mm particles must be noncarbonate.

D. Coarse Aggregate Type F9 Conditions. Use coarse aggregate meeting the requirements of § 703-02, Coarse Aggregate.

CONSTRUCTION DETAILS

The provisions of §401-3 and §402-3, Construction Details, shall apply except as noted herein.

Compact the pavement in accordance with 402-3.07 D. 80 Series Compaction Method. Use the same number of

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passes as for 9.5 mm Top Pavement Course in Table 402-5, Number of Passes.

METHOD OF MEASUREMENT

The provisions of §401-4 and §402-4, Method of Measurement, shall apply except as noted herein.

Use Table 3, Percent Passing to determine the Quality Adjustment Factor (QAF) in accordance with §401-4, Method of Measurement.

| TABLE 3 PERCENT PASSING (Nonvolumetric Designs) | | | |
|---|---|---|--|
| Average Absolute Value (Test Value - JMF Target Value) | | | Quality Adjustment Factor |
| Sieve Size 600μm and Larger | Sieve Size 300μm and 150μm | Sieve Size 75μm | |
| 0.0 - 0.8 | 0.0 - 0.5 | 0.0 - 0.3 | 1.05 |
| 0.9 - 1.5 | 0.6 - 1.0 | 0.4 - 0.5 | 1.04 |
| 1.6 - 2.3 | 1.1 - 1.5 | 0.6 - 0.8 | 1.03 |
| 2.4 - 3.0 | 1.6 - 2.0 | 0.9 - 1.0 | 1.02 |
| 3.1 - 4.5 | 2.1 - 3.0 | 1.1 - 1.5 | 1.01 |
| 4.6 - 6.0 | 3.1 - 4.0 | 1.6 - 2.0 | 1.00 |
| 6.1 - 6.3 | 4.1 - 4.2 | 2.1 | 0.99 |
| 6.4 - 6.6 | 4.3 - 4.4 | 2.2 | 0.98 |
| 6.7 - 6.9 | 4.5 - 4.6 | 2.3 | 0.97 |
| 7.0 - 7.2 | 4.7 - 4.8 | 2.4 | 0.96 |
| 7.3 - 7.5 | 4.9 - 5.0 | 2.5 | 0.95 |
| 7.6 - 7.8 | 5.1 - 5.2 | 2.6 | 0.94 |
| 7.9 - 8.1 | 5.3 - 5.4 | 2.7 | 0.93 |
| 8.2 - 8.4 | 5.5 - 5.6 | 2.8 | 0.92 |
| 8.5 - 8.7 | 5.7 - 5.8 | 2.9 | 0.91 |
| 8.8 - 9.0 | 5.9 - 6.0 | 3.0 | 0.90 |
| over 9.0 | over 6.0 | over 3.0 | 0.85 |

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BASIS OF PAYMENT

The provisions of subsection 402-5 Basis of Payment shall apply.

Payment will be made under:

| ITEM NO. | ITEM | PAY UNIT |
|--------------|---|--------------|
| 402.03810118 | Miscellaneous Patching F1, Hot Mix Asphalt | Metric Ton |
| 402.03811118 | Plant Production Quality Adjustment to 402.03810118 | Quality Unit |
| 402.03820118 | Miscellaneous Patching F2, Hot Mix Asphalt | Metric Ton |
| 402.03821118 | Plant Production Quality Adjustment to 402.03820118 | Quality Unit |
| 402.03830118 | Miscellaneous Patching F3, Hot Mix Asphalt | Metric Ton |
| 402.03831118 | Plant Production Quality Adjustment to 402.03830118 | Quality Unit |
| 402.03890118 | Miscellaneous Patching F9, Hot Mix Asphalt | Metric Ton |
| 402.03891118 | Plant Production Quality Adjustment to 402.03890118 | Quality Unit |

| | |
|--------------------------|---|
| <u>ITEM 402.06710118</u> | <u>6.3 mm F1 POLYMER-MODIFIED HMA, 70 SERIES COMPACTION</u> |
| <u>ITEM 402.06711118</u> | <u>PLANT PRODUCTION QUALITY ADJUSTMENT TO 402.06710118</u> |
| <u>ITEM 402.06720118</u> | <u>6.3 mm F2 POLYMER-MODIFIED HMA, 70 SERIES COMPACTION</u> |
| <u>ITEM 402.06721118</u> | <u>PLANT PRODUCTION QUALITY ADJUSTMENT TO 402.06720118</u> |
| <u>ITEM 402.06730118</u> | <u>6.3 mm F3 POLYMER-MODIFIED HMA, 70 SERIES COMPACTION</u> |
| <u>ITEM 402.06731118</u> | <u>PLANT PRODUCTION QUALITY ADJUSTMENT TO 402.06730118</u> |
| <u>ITEM 407.02 18</u> | <u>TACK COAT FOR 6.3 MM POLYMER-MODIFIED HMA</u> |