

## Evaluation Table

|                      |                      |
|----------------------|----------------------|
| <b>PEP ID:</b>       | XXXXX                |
| <b>Manufacturer:</b> | Name of Manufacturer |
| <b>Product Name:</b> | Name of Product      |

705 Preformed Polymer Pavement Marking  
 705 Preformed Thermoplastic Pavement Marking - Type IV (Permanent) White  
 ADOT Stored Specification: 705PVMRK, Sections 705-1(E), 705-2.04, 705-2.06  
 Responsible Section: Traffic Group

| Material Property                            | Specification/<br>Test Method | Requirements                                                                                                                                                                                                                                                          | Results | Pass /<br>Fail |
|----------------------------------------------|-------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|----------------|
| Composition                                  | 705-2.04(A)                   | Preformed thermoplastic pavement markings shall be a resilient white, yellow, or other color thermoplastic material, composed of an ester-modified resin in conjunction with pigments, binders and glass beads that have been factory-produced as a finished product. |         |                |
| Thickness, inches (mils), minimum            | 705-2.04(A)                   | 0.090 (90)                                                                                                                                                                                                                                                            |         |                |
| Binder, % by weight, minimum                 | 705-2.04(B)                   | 18                                                                                                                                                                                                                                                                    |         |                |
| Titanium Dioxide, % by weight, minimum       | 705-2.04(B)                   | 10                                                                                                                                                                                                                                                                    |         |                |
| Reflective Glass Intermix Beads, % by weight | 705-2.04(B)                   | 30 - 45                                                                                                                                                                                                                                                               |         |                |
| Color                                        | 705-2.04(C)(1)<br>ASTM D6628  | Pigments shall conform to standard highway colors.                                                                                                                                                                                                                    |         |                |
| Bend Test                                    | 705-2.04(C)(2)<br>ASTM D522*  | Pass (no cracking occurs in the test specimen)                                                                                                                                                                                                                        |         |                |
| Tensile Strength, psi, minimum               | 705-2.04(C)(3)<br>ASTM D638   | 150                                                                                                                                                                                                                                                                   |         |                |
| Tensile Elongation %, maximum                | 705-2.04(C)(3)<br>ASTM D638   | 20                                                                                                                                                                                                                                                                    |         |                |

|                                                    |                                           |                                                                                                                                                                                      |  |  |
|----------------------------------------------------|-------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|
| Bond Test, psi, minimum                            | 705-2.04(C)(4)<br>ASTM D4796              | 180                                                                                                                                                                                  |  |  |
| Abrasion Resistance, grams, maximum loss in weight | 705-2.04(C)(5)<br>ASTM D4060              | 0.25                                                                                                                                                                                 |  |  |
| Skid Resistance, BPN, minimum                      | 705-2.04(C)(6)<br>ASTM E303               | 45                                                                                                                                                                                   |  |  |
| Impact Resistance                                  | 705-2.04(C)(7)<br>ASTM D256<br>ASTM D4960 | Sample shall not break when an impact energy of at least 1.0 joule is applied.                                                                                                       |  |  |
| Glass Beads, Roundness                             | 705-2.06(B)(1)<br>ASTM D1155              | A minimum of 75 percent of the beads shall be waterwhite true spheres free from imperfections of all types including air inclusions, film, scratches, clusters, and surface scoring. |  |  |
| Glass Beads, Refractive Index, minimum             | 705-2.06(B)(2)<br>ASTM C1648              | 1.50 at 25° +/- 5° C                                                                                                                                                                 |  |  |
| Glass Beads, Gradation                             | 705-2.06(B)(3)<br>AASHTO M 247            | Shall conform to AASHTO M 247 Type 1 and Type 3.                                                                                                                                     |  |  |
| Glass Beads, Heavy Metal Composition, ppm          | 705-2.06(B)(4)                            | Arsenic: < 75 ppm                                                                                                                                                                    |  |  |
|                                                    |                                           | Antimony: < 75 ppm                                                                                                                                                                   |  |  |
|                                                    |                                           | Lead: < 100 ppm                                                                                                                                                                      |  |  |

\* ASTM D522 acceptable, but not referenced in 705PVMRK - ADOT test method in 705-2.04(C)(2).