

## Evaluation Table

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

1007 – Retroreflective Sheeting  
 1007 Fluorescent Orange Retroreflective Sheeting  
 ADOT Specification: 1007  
 Additional Requirements: ASTM D4956  
 Responsible Section: Traffic Group

| <b>Material Property</b>                                       | <b>Specification/<br/>Test Method</b>   | <b>Requirement</b>   | <b>Results</b> | <b>Pass / Fail</b> |
|--|---|--|----------------|--------------------|
| Coefficient of Retroreflection                                 | ASTM D4956<br>Section 6.2               | Shall meet or exceed the minimum requirements for the appropriate type of sheeting (see table below)   |                |                    |
| Daytime Color  | ASTM D4956<br>Section 6.3               | Daytime Luminance Factor<br>20, min  |                |                    |
|  |   | Meets Acceptable Chromaticity Box Boundaries?  |                |                    |
| Accelerated Outdoor Weathering Requirements,<br>Desert Climate | ASTM D4956<br>Section 6.4<br><br>1007-7 | Shall be weather resistant and show no appreciable cracking, scaling, pitting, blistering, edge lifting, or curling, or more than 1/32-in. (0.8-mm) shrinkage or expansion |                |                    |
| Colorfastness  | ASTM D4956<br>Section 6.5               | After the specified outdoor weathering, the specimen shall conform to the requirements of Tables 2 and 11 (see below)  |                |                    |
|  |   | Daytime Luminance Factor<br>20, min  |                |                    |
|  |   | Meets Acceptable Chromaticity Box Boundaries?  |                |                    |
| Shrinkage  | ASTM D4956<br>Section 6.6               | Shall not shrink in any dimension more than 1/32" in 10 minutes or 1/8" in 24 hours  |                |                    |
| Flexibility  | ASTM D4956<br>Section 6.7               | Sheeting shall be sufficiently flexible to show no cracking  |                |                    |
| Liner Removal  | ASTM D4956<br>Section 6.8               | The liner, when provided, shall be easily removed without soaking in water or other solutions, and shall not break, tear, or remove adhesive from the sheeting             |                |                    |

| Material Property | Specification/<br>Test Method            | Requirement   | Results | Pass / Fail |
|-------------------|--|---|---------|-------------|
| Adhesion          | ASTM D4956<br>Section 6.9<br><br>1007-6* | The adhesive backing of the retroreflective sheeting shall produce a bond that will support a 1 3/4-lb (0.79-kg) weight for adhesive class 1* |         |             |
| Impact Resistance | ASTM D4956<br>Section 6.10               | Shall show no cracking or delamination outside of the actual area of impact   |         |             |
| Nighttime Color   | ASTM D4956<br>Section 6.11               | Meets Acceptable Chromaticity Box Boundaries?   |         |             |

\*Reflective sheeting and film adhesives shall be Class I as specified in ASTM D4956

**Material Property: Minimum Coefficient of Retroreflection (R<sub>A</sub>)**  
**ASTM D4956 Section 6.2 – Tables 5, 7, 8, 9, 10**

| Observation Angle  | Entrance Angle | Type IV | Type VI | Type VIII | Type IX | Type XI |
|--------------------|----------------|---------|---------|-----------|---------|---------|
| 0.20°              | -4°            | 105     | 200     | 210       | 115     | 175     |
| Results            |                |         |         |           |         |         |
| 0.20°              | +30°           | 50      | 80      | 95        | 65      | 66      |
| Results            |                |         |         |           |         |         |
| 0.50°              | -4°            | 45      | 90      | 75        | 72      | 125     |
| Results            |                |         |         |           |         |         |
| 0.50°              | +30°           | 22      | 34      | 35        | 41      | 45      |
| Results            |                |         |         |           |         |         |
| 1.00°              | -4°            | n/a     | n/a     | n/a       | 24      | 36      |
| Results            |                |         |         |           |         |         |
| 1.00°              | +30°           | n/a     | n/a     | n/a       | 14      | 14      |
| Results            |                |         |         |           |         |         |
| <b>Pass / Fail</b> |                |         |         |           |         |         |

**Outdoor Weathering Photometric Requirements for All Climates  
 (Type IV, VIII, IX, XI = 80% @ 36 months / Type VI = 50% @ 6 months)\*  
 Material Property: Minimum Coefficient of Retroreflection (R<sub>A</sub>)  
 ASTM D4956 Section 6.4 - Table 12**

| Observation Angle  | Entrance Angle | Type IV | Type VI | Type VIII | Type IX | Type XI |
|--------------------|----------------|---------|---------|-----------|---------|---------|
| 0.20°              | -4°            | 84      | 100     | 168       | 92      | 140     |
| Results            |                |         |         |           |         |         |
| 0.20°              | +30°           | 40      | 40      | 76        | 52      | 52.8    |
| Results            |                |         |         |           |         |         |
| <b>Pass / Fail</b> |                |         |         |           |         |         |

\*Testing at shorter intervals may be done to gather additional information. When sheeting is specified for construction work zone applications, the outdoor weathering shall be twelve months.

**Material Property: Weather Testing and Durability Requirements  
 ADOT Specification 1007-7, 1007-8**

| ASTM Sheeting Type | Color              | Required Durability Rating, Years | Result Durability Rating, Years | Pass / Fail |
|--------------------|--------------------|-----------------------------------|---------------------------------|-------------|
| XI                 | Flourescent Orange | 3                                 |                                 |             |
| IX                 | Flourescent Orange | 3                                 |                                 |             |
| VIII               | Flourescent Orange | 3                                 |                                 |             |
| VI                 | Flourescent Orange | 3                                 |                                 |             |
| IV                 | All Colors         | 5                                 |                                 |             |
| I                  | All Colors         | 5                                 |                                 |             |