

Evaluation Table

PEP ID:	XXXXX
Manufacturer:	Name of Manufacturer
Product Name:	Name of Product

704 Thermoplastic Pavement Marking
 704 Profile Thermoplastic Pavement Marking (White)
 ADOT Specifications: 704
 ADOT Stored Specification: 704TPMF
 Responsible Section: Traffic Group

Material Property	Specification/ Test Method	Requirements
General	704TPMF 704-1(B)	The thermoplastic formulations used for profile thermoplastic rumble stripes shall be specifically designed as extruded profile thermoplastic reflectorized marking systems.
Binder, min, %	704TPMF 704-2.02(A) ASTM D4797	20
Titanium Dioxide, min, %	704TPMF 704-2.02(A)	10
Titanium Dioxide, details	704-2.02(D)	Shall conform to the requirements of ASTM D476 for Type II (92 percent).
Reflective Glass Intermix Beads, min, %	704TPMF 704-2.02(A) ASTM D4797	30
Calcium Carbonate or Equivalent Filler, max, %	704TPMF 704-2.02(A)	31
Alkyd Binder, details	704-2.02(A)	Shall consist of a mixture of synthetic resins, at least one of which is solid at room temperature, and of high-boiling-point plasticizers.
Alkyd Binder, details	704-2.02(A)	At least one third of the binder composition and no less than 8 percent by weight of the entire material formulation shall be solid maleic-modified glycerol ester resin or solid maleic-modified pentaerythritol ester resin.
Alkyd Binder, details	704-2.02(A)	Shall not contain any petroleum-based hydrocarbon resins.

Material Property	Specification/ Test Method	Requirements
Color: Daylight Reflectance at 45 degrees - 0 degrees min, %	704-2.03(B)	70
Color Chip Match	704-2.03(B)	Federal Test Standard: Number 595 Color chip no. 17925
Softening Point	704-2.03(D) ASTM D36	Softening point of 215 ± 15 °F
Water Absorption, max, %	704-2.03(E) ASTM D570	0.5
Specific Gravity	704-2.03(E) AASHTO T 250	1.85 to 2.15
Impact Resistance, inch-pounds, min 425°F for 240 minutes	704TPMF 704-2.03(F) ASTM D256 Method A	10
Bond Strength, min, psi	704-2.03(G) AASHTO T 250	180
Abrasion resistance, max loss, grams	704TPMF 704-2.03(H)	0.4 - 0.5
Cracking Resistance at Low Temperature	704-2.03(I) AASHTO T 250	Shall show no cracks when observed from a distance exceeding 12 inches.
Flowability, max residue, %	704-2.03(J) AASHTO T 250	18
Yellowness Index , max	704-2.03(K) 704-2.05(C) ASTM D4960 ASTM E-313	0.12
Flowability (Extended Heating), max residue, %	704-2.03(L) AASHTO T 250	28

Material Property	Specification/ Test Method	Requirements
Flash Point, min, °F	704TPMF 704-2.03(M) ASTM D92	475 (or manufacturer's specification)
Color Stability	704-2.03(P) ASTM G 155, Cycle 1	No Color Change after 500 Hours