

QPL 43 - CLOSURE POUR MATERIAL

SECTION A: HIGH EARLY STRENGTH

PROCEDURES

GENERAL

This evaluation procedure outlines the Department's approval process for closure pour materials used in accelerated bridge construction for tying precast panels, beams/girders, and bent/pier caps into a monolithic unit.

SPECIFICATIONS

Products accepted for this list shall have completed a NTPEP evaluation for / Rapid Set Concrete Patch Materials (RSCP) and meet the following specifications.

TDOT Structural Drawings

AASHTO R 39

AASHTO T 22

ASTM C 157

ASTM C 882

PROCEDURES

Manufacturer's shall submit a Product Evaluation Form (DT 1480), MSDS sheets, if applicable, manufacturer's product data information and recommended mixing instructions and a completed NTPEP evaluation to the Division of Materials and Tests. The product shall be evaluated in an "extended" condition (using 3/8-inch nominal aggregate) this includes products packaged as an "extended" product (aggregate included). The aggregate shall be a granite, gravel, or limestone. This extended condition is to simulate expected field applications for bridge closure pours.

It is recognized that the parameters as specified below are not consistent with ASTM Standards. Therefore, the products will be evaluated to meet the specified parameters.

The extended product shall meet the following criteria:

1) AASHTO T106/ASTM C 109 – or - AASHTO T22/ASTM C39 Compressive Strength:

<u>Age</u>	<u>Compressive Strength</u>
8 hours	4,000 PSI
24 hours	For Information Only
3 days	For Information Only
7 days	For Information Only
28 days	6,000 PSI

2) ASTM C157 - Length Change of Hardened Concrete (cured in air)

<u>Age</u>	<u>Maximum Length Change</u>
28 days	- 0.10 %

3) ASTM C882 - Bond Strength by Slant Shear (modified to test at early ages)

<u>Age</u>	<u>Bond Strength</u>
24 hours	1,000 PSI
7 days	For Information Only