

## Ready Mix Concrete vs Prestress Concrete - Quick Reference Guide

This quick reference guide will provide a snapshot in defining the similarities and differences between prestress concrete and ready-mix concrete. Please refer to the Standard Specifications for Highway Construction, Materials Sampling Guide, and the Materials Management Guidance webpage for a more complete picture.

Definitions:

- Precast concrete: concrete cast in reusable molds or forms, cured in a controlled environment, which is then transported to the construction site and lifted in place.
- Ready-mix concrete: manufactured according to a set recipe and delivered to the work site by truck mounted in-transit mixers.

### Ready Mix Material

#### Typical Cast-in-Place Concrete

*Material Code, Name, and Description:*

**1002PCC, Portland Cement Concrete**

*Test Templates:*

MSF002, Small Quantities of Non Critical Material - Field  
 PCF001, Portland Cement MIA Cylinders - Field  
 PCF002, Mainline Pavement/Structure Maturity Report - Field  
 PCF003, Pavement Repair (Maturity Tests) – Field  
 PCF008, PCC Percent Air  
 PCF009, PCC Cylinder Cast  
 PCF010, PCC Mix Design Submittal  
 PCF011, PCC Proportions (Mix Design/No Mix Design)  
 PCF012001, PCC Slump  
 PCF013, PCC Concrete Temperature  
 PCX005, Maturity Curve Development  
 PCL004, Compressive Strength Average of Two  
 PCL024, PCC Mix Design Approval

#### Ready Mix Supplied Concete - Contractor Poured/Formed

*Material Code, Name, and Description:*

**1002PCC, Portland Cement Concrete**

*Test Templates:*

MSF002, Small Quantities of Non Critical Material - Field  
 PCF001, Portland Cement MIA Cylinders - Field  
 PCF002, Mainline Pavement/Structure Maturity Report - Field  
 PCF003, Pavement Repair (Maturity Tests) – Field  
 PCF008, PCC Percent Air  
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### Ready Mix Supplied Concete - Contractor Poured/Formed, cont.

PCF013, PCC Concrete Temperature  
 PCX005, Maturity Curve Development  
 PCL004, Compressive Strength Average of Two  
 PCL024, PCC Mix Design Approval

### Precast/Prestress Material

#### Typical Precast/Prestress Concrete

*Material Code, Name, and Description:*

**Material: 705PSPCC, Precast/Prestressed Concrete**

*Test Templates:*

PCL003, PCC PreStressed Strength Test - Central Lab  
 PCX002, PCC Plant & Field Performed Test (Projs Let Before 2/5/2014)  
 PCX002, PCC Plant & Field Performed Test (Projs Let After 2/4/2014)

#### Ready Mix Supplied Concrete - Prestress Poured/Formed

*Material Code, Name, and Description:*

**Material: 705PSPCC, Precast/Prestressed Concrete**

*Test Templates:*

PCL003, PCC PreStressed Strength Test - Central Lab  
 PCX002, PCC Plant & Field Performed Test (Projs Let Before 2/5/2014)  
 PCX002, PCC Plant & Field Performed Test (Projs Let After 2/4/2014)

#### Ready Mix Supplied Concrete - Ready Mix Poured/Formed

*Material Code, Name, and Description:*

**Material: 705PSPCC, Precast/Prestressed Concrete**

*Test Templates:*

PCL003, PCC PreStressed Strength Test - Central Lab  
 PCX002, PCC Plant & Field Performed Test (Projs Let Before 2/5/2014)  
 PCX002, PCC Plant & Field Performed Test (Projs Let After 2/4/2014)