



**Section: Under Slab Grouting Precast Pavement**

Bedding Grout, Backfill Material, Cementitious Support  
PJCP & ISR Precast Concrete Panel Systems

<b>Performance Plus™ Dual Purpose Grout Typical Test Data</b>	
<b>50 lb. bag weight / 56 bags per pallet</b>	<b>yield 0.50 cubic feet</b>

**Performance Plus™ Dual Purpose Grout**

rapid hardening, non-shrink, very free flowing, zero bleed, sanded, cementitious grout

**DESCRIPTION**

Performance Plus™ Dual Purpose Grout is a blend of type II/V Portland Cement and admixtures designed to provide maximum flow and shrinkage compensation. Performance Plus™ Dual Purpose Grout is non-metallic and contains no chlorides.

**USES**

Performance Plus™ Dual Purpose Grout is specifically designed as a pumpable, non-bleeding, rapid hardening, bedding support for under precast concrete panels (PCP), fill load transfer slots and longitudinal joints.

**BENEFITS**

- Performance Plus™ Dual Purpose Grout achieves adequate early strength gain to load the precast concrete panels in 40 minutes from time of mixing
- Performance™ Plus Dual Purpose Grout can be placed up to 8 inches in thickness
- Strict manufacturing quality control protocol
- Contains 10% Type "F" Fly Ash post-industrial recycled content
- Dual Purpose used for underslab grouting, load transfer fill pocket grouting and longitudinal jointing fill grout

**SURFACE PREPARATION**

All grouting ports shall be free of dirt, oil, grease, laitance and other contaminants. Remove all unsound concrete, grease, oil, dirt and bond inhibiting materials from the bottom of the precast panels. When the underslab grout is pumped on fresh, clean concrete base, the base material should be properly water cured. No standing water.

**MIXING**

For best results use a mixer similar to ChemGrout CG-500 Versatile. Add 7.0 quarts of water per 50 lb. bag of grout into the mixer first then slowly add grout. Mix for approximately 3 minutes after the addition of the last bag or until a homogeneous mix is achieved. Continue to agitate grout in the holding hopper to achieve best flow. It is recommended to not mix more than 6 - 50 lb bags/mixing tank. When mixing single bag quantities, mechanically mix with high-speed drill (900 rpm) and mixing paddle for 3 minutes or until lump free. The preferred flow (efflux) time is between 20-30 seconds. In warmer temperatures cold mixing water will extend set time; in colder temperatures warm mixing water will shorten set time. Setting time may be extended using Performance Plus™ Retarder. For lab mixing follow ASTM 305.

**PLACEMENT**

Performance Plus™ Dual Purpose Grout can be placed by pumping or pouring. Grout should continue to be placed until it protrudes from the vent holes (grout ports) area. Excess grout may be removed from the grout ports after initial set and before final set.

Compressive Strength ASTM C-109\* 70° F

45 minutes	1 hr.	24 h r.	7 day	28 day
2,500 psi	3,000	6,000	7,900	8,000
ASTM C 191-04 Time of Setting Initial Set Time 20 minutes Final Set Time 25 minutes				
*Set times calculated from the start of mixing				

Compressive Strength ASTM C-109\* (Mod. 45° F COLD WEATHER)

50 minutes	1 hr.	24 hr.	7 day	28 day
1,200 psi	2,000	5,000	6,700	7,000
ASTM C 191-04 Time of Setting Initial Set Time 25 minutes Final Set Time 30 minutes				
*Set times calculated from the start of mixing				

Volume Change ASTM C-1090-10

Age	% Height Change
3 days	+ 0.01
28 days	+ 0.03

Flow Cone Method

ASTM	C-939
Fluidity / Flow (efflux)	< 30 seconds

Grout Bond Strength, Bond to Dry PCC

Caltrans (CT)	551
24 hrs.	506 psi

**LIMITATIONS**

Do not apply under surfaces that are frozen or contain frost. Normal conditions working time is 15 minutes. Setting time will speed up in hot weather and slow in cold weather. For hot and cold weather applications, contact your representative.

**STORAGE**

Normal cement storage and handling practices should be observed. Store material in an interior, cool, dry place. Shelf life is 12 months in original, unopened container.

**REGULATORY**

This product contains Portland cement (CAS#65997-15-1) and Crystalline Silica (CAS# 14808-60-7)  
Prop 65  
Warning! This product contains Crystalline Silica, a chemical known to the State of California to cause cancer or reproductive toxicity.

**CAUTION**

EYE AND SKIN IRRITANT - Contains Portland cement (CAS# 65997-15-1) and Crystalline Silica (CAS# 14808-60-7). Do not allow contact with eyes or skin. Avoid breathing dust - silica may cause serious lung problems. There is limited evidence silica is a carcinogen. The use of gloves, goggles, dust masks and other protective clothing is recommended. If cement or sand particles get into eyes, rinse immediately with clean water and seek prompt medical attention.

**TECHNICAL SERVICE**

Contact your Performance Plus manufacturer's representative for the most current product information.  
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