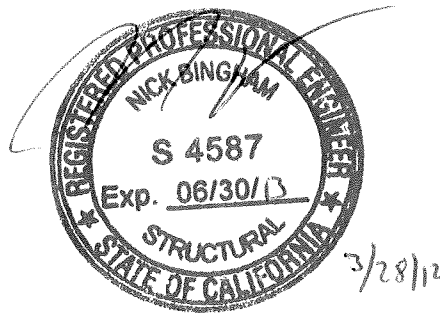




**Jensen Precast
5000 psi F!c
Concrete Mix Design**

For

**The Jensen Precast Facility
Sacramento, California**



March 27, 2012

File No. 032712-SACRAMENTO-5000

Corporate Engineering Office
825 Steneri Way
Sparks, Nevada 89431
Phone 775-352-2700
Fax 775-352-6364

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MANUFACTURER OF PRECAST CONCRETE PRODUCTS

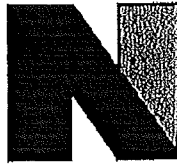
JENSEN PRECAST

MIX DESIGN DATE: 3/27/2012 MIX NAME: 5000PC727SK40ADVA100 7.27 Sack PLANT: SACRAMENTO ENTRAINED AIR PERCENTAGE 0.000% ENTRAPPED AIR PERCENTAGE 2.000%	DESIGN STRENGTH: 5000.00 psi at 28 DAYS 34.4750 MPa at 28 DAYS WATER/CEMENTIOUS MATERIAL RATIO: 0.400 CEMENTIOUS MATERIAL CONTENT: 683.000 LBS/CU.YD. 405.191 KG/CU.METER
AGGREGATE NUMBER 1 TYPE: 3/8 x No.8 SSD SPECIFIC GRAVITY: 2.665 SOURCE: Granite Capay AGGREGATE RATIO: 0.582	AGGREGATE NUMBER 2 TYPE: SSD SPECIFIC GRAVITY: 0.000 SOURCE: AGGREGATE RATIO: 0.000
AGGREGATE NUMBER 3 TYPE: Concrete Sand SSD SPECIFIC GRAVITY: 2.647 SOURCE: Granite Capay AGGREGATE RATIO: 0.418	AGGREGATE NUMBER 4 TYPE: SSD SPECIFIC GRAVITY: 0.000 SOURCE: AGGREGATE RATIO: 0.000
CEMENT NUMBER 1 TYPE: Type II/V SPECIFIC GRAVITY: 3.150 SOURCE: Nevada Cement CEMENTIOUS MATERIAL RATIO: 1.000	CEMENT NUMBER 2 TYPE: SPECIFIC GRAVITY: 3.150 SOURCE: CEMENTIOUS MATERIAL RATIO: 0.000
CEMENT NUMBER 3 TYPE: SPECIFIC GRAVITY: 3.150 SOURCE: CEMENTIOUS MATERIAL RATIO: 0.000	CEMENTIOUS FLY ASH TYPE: Type F Fly Ash SPECIFIC GRAVITY: 2.340 SOURCE: Bridger CEMENTIOUS MATERIAL RATIO: 0.000
MINERAL ADDITIVE TYPE: SPECIFIC GRAVITY: 0.000 SOURCE: LBS/CU.YARD 0.000 KG/CU.METER 0.0000	LIQUID ADMIXTURE NUMBER 1 TYPE: Super Plasticizer SOURCE: W.R. GRACE PRODUCT: ADVA 100 OUNCES/100 LBS. CEMENTIOUS MATERIAL 7.320 LITERS/100 KG CEMENTIOUS MATERIAL 0.4772
LIQUID ADMIXTURE NUMBER 2 TYPE: Accelerator SOURCE: W.R. GRACE PRODUCT: Polorset OUNCES/100 LBS. CEMENTIOUS MATERIAL 7.320 LITERS/100 KG CEMENTIOUS MATERIAL 0.4772	LIQUID ADMIXTURE NUMBER 3 TYPE: SOURCE: PRODUCT: OUNCES/100 LBS. CEMENTIOUS MATERIAL 0.000 LITERS/100 KG CEMENTIOUS MATERIAL 0.0000
LIQUID ADMIXTURE NUMBER 4 TYPE: SOURCE: PRODUCT: OUNCES/100 LBS. CEMENTIOUS MATERIAL 0.000 LITERS/100 KG CEMENTIOUS MATERIAL 0.0000	LIQUID ADMIXTURE NUMBER 5 TYPE: SOURCE: PRODUCT: OUNCES/100 LBS. CEMENTIOUS MATERIAL 0.000 LITERS/100 KG CEMENTIOUS MATERIAL 0.0000

JENSEN PRECAST

MIX DESIGN DATE:	3/27/2012	DESIGN STRENGTH:	5000.00	psi at 28 DAYS
MIX NAME:	5000PC727SK40ADVA100		34.4750	MPa at 28 DAYS
	7.27 Sack			
PLANT:	SACRAMENTO	WATER/CEMENTIOUS MATERIAL RATIO:	0.400	
ENTRAINED AIR PERCENTAGE	0.000%	CEMENTIOUS MATERIAL:	683.000	LBS/CU.YD.
ENTRAPPED AIR PERCENTAGE	2.000%		405.191	KG/CU.METER

MIX DESIGN QUANTITIES					
MATERIAL	DESCRIPTION	SPECIFIC GRAVITY	DESIGN QUANTITIES		ABSOLUTE VOLUME
AGGREGATE NUMBER 1	3/8 x No.8	2.665	1800.868 1068.367	LBS./CUBIC YARD KG/CUBIC METER	0.40108
AGGREGATE NUMBER 2		0.000	0.000 0.000	LBS./CUBIC YARD KG/CUBIC METER	0.00000
AGGREGATE NUMBER 3	Concrete Sand	2.647	1284.671 762.133	LBS./CUBIC YARD KG/CUBIC METER	0.28806
AGGREGATE NUMBER 4		0.000	0.000 0.000	LBS./CUBIC YARD KG/CUBIC METER	0.00000
CEMENT NUMBER 1	Type II/V	3.150	683.000 405.191	LBS./CUBIC YARD KG/CUBIC METER	0.12870
CEMENT NUMBER 2		3.150	0.000 0.000	LBS./CUBIC YARD KG/CUBIC METER	0.00000
CEMENT NUMBER 3		3.150	0.000 0.000	LBS./CUBIC YARD KG/CUBIC METER	0.00000
CEMENTIOUS FLY ASH	Type F Fly Ash	2.340	0.000 0.000	LBS./CUBIC YARD KG/CUBIC METER	0.00000
MINERAL ADDITIVE		0.000	0.000 0.000	LBS./CUBIC YARD KG/CUBIC METER	0.00000
LIQUID ADMIXTURE NUMBER 1	Super Plasticizer	1.000	49.996 1.9335	OUNCES/CUBIC YARD LITERS/CUBIC METER	0.00193
LIQUID ADMIXTURE NUMBER 2	Accelerator	1.000	49.996 1.9335	OUNCES/CUBIC YARD LITERS/CUBIC METER	0.00193
LIQUID ADMIXTURE NUMBER 3		1.000	0.000 0.0000	OUNCES/CUBIC YARD LITERS/CUBIC METER	0.00000
LIQUID ADMIXTURE NUMBER 4		1.000	0.000 0.0000	OUNCES/CUBIC YARD LITERS/CUBIC METER	0.00000
LIQUID ADMIXTURE NUMBER 5		1.000	0.000 0.0000	OUNCES/CUBIC YARD LITERS/CUBIC METER	0.00000
WATER		1.000	266.684 158.210 31.970 158.261	LBS./CUBIC YARD KG/CUBIC METER GALLONS/CUBIC YARD LITERS/CUBIC METER	0.15829
AIR CONTENT	ENTRAINED	0.000	0.000 0.000	CUBIC YARDS CUBIC METERS	0.00000
AIR CONTENT	ENTRAPPED	0.000	0.020 0.020	CUBIC YARDS CUBIC METERS	0.02000
UNIT WEIGHTS (PLASTIC)			4041.734 2397.764	LBS./CUBIC YARD KG/CUBIC METER	1.00000



NEVADA CEMENT COMPANY

Post Office Box 840, Fernley, Nevada 89408 - 0840 (775) 575 - 2281

LABORATORY TEST REPORT

SAMPLE: TYPE II/V (Low - Alkali)

DATE: March 2012

Customer: Townsend/Sacto

SILLO: 6

Bill of Lading: 354950

CHEMICAL ANALYSIS (%)

ASTM C114

Silicon Dioxide	20.1
Aluminum Oxide	3.7
Ferric Oxide	3.6
Magnesium Oxide	4.3
Sulfur Trioxide	2.6
Loss on Ignition	1.9
Insoluble Residue	0.24
Total Equ. As Na ₂ O	0.58

PHYSICAL TESTS

Specific Surface (Blaine)	4115
ASTM C204	
Fineness (325 Sieve) passing %	97.1
ASTM C430	
Autoclave Expansion, %	0.02
ASTM C151	
Set Time Vicat Needles	
ASTM C191	
Initial Set Min.	110
Air Content, %	6
ASTM C185	
Mortar Bar Expansion in Water, %	0.02
ASTM C1038	

COMPOUND COMPOSITION (%)

ASTM C150

Tricalcium Silicate	63
Dicalcium Silicate	10
Tricalcium Aluminate	4
2(C3A) + C4AF	18
C3S + 4.75 * C3A	81

COMPRESSIVE STRENGTHS (P.S.I.)

ASTM C109

	Mpa	(psi)
3 Day Mpa, (psi)	29.1	4215
7 Day Mpa, (psi)	35.7	5170
28 Day Mpa, (psi) Previous month	42.7	6190

The material is supplied from a cement producer (C). This material meets the requirements of the current ASTM C150 specifications for Type II/V cement. This mill cert was obtained from testing conducted at the Nevada Cement Company's Laboratory. The above data represents the average of the silos or bins ground during the month of February 2012 from which this cement was shipped.

Silicon dioxide (SiO₂) is present in the combined state as the compounds tricalcium silicate and dicalcium silicate, and not as crystalline silica. This cement may contain processing additions which meet the requirements of ASTM C465. Compliance documents for these processing additions are available upon request. All test results are certified to comply with the type specification designated.

We are not responsible for improper use or workmanship.

AASHTO Accredited since 1996

Michael Watson
Chief Chemist

Submittal of Caltrans 3/8" x No. 8 Concrete Aggregate / ASTM Size #8

Pursuant to ASTM C 33, following is submitted for your review and acceptance:

1200- 3/8" Pea Gravel

Sieve/Test	Average	Unit	ASTM C 33, Coarse, Size #8
1/2" (12.5mm)	100	%	100-100
3/8" (9.5mm)	98	%	85-100
#4 (4.75mm)	21	%	10-30
#8 (2.36mm)	2	%	0-10
#16 (1.18mm)	1	%	0-5
Pan	0.0	%	
-#200 (75um)	0.5	%	0-1
Soundness (NaSO4)	5.3	%	0-12
LA Abrasion (500 rev)	17	%	0-50
Chert	1.5	%	0-3
CS / Lignite	0.0	%	0-1
Clay/Lumps and Friable Particles	0.8	%	0-2
Absorption	1.6	%	
SPGR (Dry,Gsb)	2.622		
SPGR (SSD)	2.665		

If we can be of further assistance, please do not hesitate to contact us.

Respectfully,
GRANITE CONSTRUCTION COMPANY

Expires 12 months from date of issue



03/17/2012

Capay Agg Plant
15560 County Road 87
Esparto, CA 95627
916-855-4400

Submittal of Concrete Sand

The following is submitted for your review and acceptance:

1300- Concrete Sand

Sieve/Test	Average	Unit	Caltrans, May 2006, Section 90-3.03, Fine Aggregate
3/8" (9.5mm)	100	%	100-100
#4 (4.75mm)	100	%	95-100
#8 (2.36mm)	88	%	65-95
#16 (1.18mm)	X=60	%	50-70
#30 (0.6mm)	X=35	%	26-44
#50 (0.3mm)	X=19	%	10-22
#100 (0.15mm)	6	%	2-12
#200 (75um)	1.7	%	0-8
Pan	0.0	%	
Durability (Df)	63		60-100
SE	83	%	82-100
Soundness (NaSO4) Fine	4	%	0-10
Absorption	1.5	%	
SPGR (Dry,Gsb)	2.610		
SPGR (SSD)	2.647		

If we can be of further assistance, please do not hesitate to contact us.

Respectfully,
GRANITE CONSTRUCTION COMPANY

Engineering Services

Expires 12 months from date of issue

Grace Construction Products

W.R. Grace & Co. - Conn.
62 Whittemore Avenue
Cambridge, MA 02140-1692

T 617-876-1400
www.graceconstruction.com

3/20/2012

James Denton
Jensen Precast
5400 Raley Blvd
Sacramento, California 95838

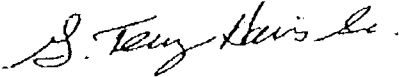
Project Name: Plant
Product Selected: ADVA® Cast 540

GRACE

This is to certify that the ADVA Cast 540, a High Range Water Reducer, as manufactured and supplied by Grace Construction Products, W.R. Grace & Co. - Conn., is formulated to comply with the Specifications for Chemical Admixtures for Concrete, ASTM: C494, 1017, Type F, AASHTO: M194, Type F.

ADVA Cast 540 does not contain calcium chloride or chloride containing compounds as a functional ingredient. Chloride ions may be present in trace amounts contributed from the process water used in manufacturing.

The foregoing is in addition to and not in substitution for our standard Conditions of Sale attached.



G. Terry Harris
Technical Services Manager