

Evaluation Table:

PEP ID:	
Manufacturer:	
Product Name:	

912 Structural Repair with Shotcrete, Dry Method
 ADOT Specifications: 912 Shotcrete, 1006 Portland Cement Concrete

Product Property	Specification/ Test Method	Requirement	Results	Pass/ Fail
Portland Cement and Water:	912-2.01	Portland cement and mixing water shall conform to the requirements of Subsection 1006-2.01 and 1006-2.02 of the specifications, respectively.	See below	
Hydraulic Cement:	1006-2.01(B)/ ASTM C150	Portland cement shall conform to the requirements of ASTM C150 for Type II, III, or V.		
Hydraulic Cement:	1006-2.01(B)	Portland cement shall not contain more than 0.60 percent total equivalent alkalies.		
Water:	1006-2.02/ ASTM C1602	Water shall meet the requirements of ASTM C1602, except that it shall contain no more than 1,000 parts per million of chlorides as Cl and no more than 1,000 parts per million of sulfates as SO4.		
Water:	1006-2.02	The water used shall be free of injurious amounts of oil, acid, alkali, clay, vegetable matter, silt, or other harmful matter.		
Fine Aggregate:	912-2.02(A)	Fine aggregate shall conform to the requirements of Subsection 1006-2.03(B) of the specifications.	See below	
Fine Aggregate:	1006-2.03(B)	Fine aggregate shall be a natural or manufactured sand, or other approved inert material with similar characteristics, composed of clean, hard, strong, durable, uncoated particles.		
Fine Aggregate:	1006-2.03(B)/ AASHTO M 6	The aggregate shall be washed and shall conform to the requirements of AASHTO M 6, with the following exceptions:		

Product Property	Specification/ Test Method	Requirement		Results	Pass/ Fail
Fine Aggregate:	1006-2.03(B)	The amount of deleterious substances in the washed fine aggregate shall not exceed the following limits by dry weight, when tested in accordance with the following test methods:		See below	
Fine Aggregate: Table 1006-2	1006-2.03(B)/ AASHTO T 112	Clay lumps and friable particles	0.5%		
	1006-2.03(B)/ AASHTO T 113 (Report to nearest 0.01%)	Lightweight particles (SG<2.0)	1.25% (0.25% Max. Coal and Lignite)		
Fine Aggregate: Table 1006-3	1006-2.03(B)	Fine aggregate shall meet the following gradation requirements when tested in accordance with Arizona Test Method 201:		See below	
		Sieve Size	Percent Passing		
		3/8 in.	100		
		No. 4	95-100		
		No. 16	45-80		
		No. 50	0-30		
		No. 100	0-10		
No. 200	0-4.0				
Fine Aggregate:	1006-2.03(B)	Fine aggregate shall have a sand equivalent value of not less than 75.			
Coarse Aggregate:	912-2.02(B)	Coarse aggregate shall conform to the requirements of Subsection 1006-2.03(C) of the specifications, except that it shall conform to the following gradation:		See below	
		Sieve Size	Percent Passing		
		1/2 inch	100		
		3/8 inch	85-100		
		No. 4	0-30		
		No. 8	0-10		
No. 16	0-5				

Product Property	Specification/ Test Method	Requirement		Results	Pass/ Fail
Coarse Aggregate:	1006-2.03(C)	Coarse aggregate shall consist of crushed stone, gravel, crushed gravel, or other approved inter material of similar characteristics, including cinders when specified, having hard, strong and durable pieces free of clay and other deleterious substances. The aggregate shall be washed.			
Coarse Aggregate:	1006-2.03(C)	The amount of deleterious substances in the washed coarse aggregate shall not exceed the following limits by dry weight, when tested in accordance with the following test methods, except as noted:		See below	
Coarse Aggregate: Table 1006-4	1006-2.03(C)/ AASHTO T 112	Clay lumps and friable particles	0.3%		
	1006-2.03(C)/ AASHTO T 113 (Report to nearest 0.01%)	Lightweight particles (SG<2.0)	1.25% (0.25% Max. Coal and Lignite)		
	1006-2.03(C)/ Arizona Test Method 201	Material passing No. 200 sieve	1.0%		
Coarse Aggregate:	1006-2.03(C)/ AASHTO T 96	The percent of wear of coarse aggregate at 500 revolutions, when tested in accordance with the requirements of AASHTO T 96, shall not exceed 40.			
Coarse Aggregate:	1006-2.03(C)/ Arizona Test Method 212	The percent of one face fractured coarse aggregate particles shall be at least 30 when tested in accordance with the requirements of Arizona Test Method 212.			
Admixtures:	912-2.03	Admixtures shall conform to the requirements of Subsection 1006-2.04 of the specifications.		See below	
Chemical Admixtures:	1006-2.04(B)/ ASTM C260	Air-entraining admixtures shall conform to the requirements of ASTM C260.			

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Chemical Admixtures:	1006-2.04(B)/ ASTM C494	Water reducing, retarding, hydration stabilizing, and accelerating admixtures shall conform to the requirements of ASTM C494 for the appropriate type.		
Chemical Admixtures:	1006-2.04(B)/ ASTM C494	Specific performance admixtures for precast items, patching materials, or other products shall conform to the requirements of ASTM C494, including data to substantiate the specific performance characteristics.		
Additives:	1006-2.04(C)/ ASTM C979	Pigments incorporated into the approved concrete mix design for integrally colored concrete shall meet the requirements of ASTM C979.		
Additives:	1006-2.04(C)/ ASTM C1116	Fibers incorporated into the approved concrete mix shall meet the requirements of ASTM C1116.		
Dry Mix Process:	912-3.01(A)	Dry mix material shall consist of one part Portland cement to not more than four parts fine aggregate, measured either by weight or by volume.		
Dry Mix Process:	912-3.01(A)	The fine aggregate shall contain not less than 3 percent nor more than 6 percent moisture by weight.		