



Western Technologies Inc.
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PHYSICAL PROPERTIES OF AGGREGATES

Client **SOUTHWEST ROCK PRODUCTS**
ATTN STEVE HOOD
745 N GILBERT RD #124-304
GILBERT, AZ 85234

Date of Report **03-24-09**
Job No. **2149JL012**
Event / Invoice No. **C012-025** Lab No. **23471**
Authorized by **SRP/HOOD** Date **03-18-09**
Sampled by **WT/RANGEL** Date **03-18-09**
Submitted by **WT/RANGEL** Date **03-18-09**

Project **LABORATORY SERVICES**
Contractor --
Type / Use of Material **CONCRETE SAND**
Sample Source / Location **STOCKPILE/PLANT #1**
Testing Authorized :
Special Instructions :

Location **QUEEN CREEK, AZ**
Arch. / Engr. --
Supplier / Source **SOUTHWEST ROCK PRODUCTS/QUEEN CREEK**
Source / Location Desig. By **WT/RANGEL** Date **03-18-09**

TEST RESULTS

| SIEVE ANALYSIS | | | PHYSICAL PROPERTIES | | | | RESULTS | SPECS |
|---|------------------------|---------------|--|--------------------------------------|--------------------------------|---|---|---------|
| <input checked="" type="checkbox"/> ASTM C136 <input type="checkbox"/> AASHTO T27 <input checked="" type="checkbox"/> FINER THAN #200 <input type="checkbox"/> ASTM C117 <input type="checkbox"/> AASHTO T11 | | | | | | | | |
| SIEVE | ACCUMULATIVE % PASSING | SPECIFICATION | UNIT WEIGHT & VOIDS | | FINE AGGREGATE | UNIT WEIGHT, KG/M ³ → | | |
| | | | <input type="checkbox"/> ASTM C29 | <input type="checkbox"/> AASHTO T19 | | VOIDS, % → | | |
| | | | <input type="checkbox"/> RODDING | <input type="checkbox"/> JIGGING | <input type="checkbox"/> LOOSE | COARSE AGGREGATE UNIT WEIGHT, KG/M ³ → | | |
| | | | | | | VOIDS, % → | | |
| | | | SPECIFIC GRAVITY & ABSORPTION | | FINE AGGREGATE | BULK SPECIFIC GRAVITY → | | |
| | | | <input type="checkbox"/> ASTM C128 | <input type="checkbox"/> AASHTO T84 | | BULK SPECIFIC GRAVITY (SSD) → | | |
| | | | <input type="checkbox"/> YES | <input type="checkbox"/> NO | | AGGREGATE DRIED APPARENT SPECIFIC GRAVITY → | | |
| | | | | | | ABSORPTION, % → | | |
| | | | | | COARSE AGGREGATE | BULK SPECIFIC GRAVITY → | | |
| | | | <input type="checkbox"/> ASTM C127 | <input type="checkbox"/> AASHTO T85 | | BULK SPECIFIC GRAVITY (SSD) → | | |
| | | | <input type="checkbox"/> YES | <input type="checkbox"/> NO | | AGGREGATE DRIED APPARENT SPECIFIC GRAVITY → | | |
| | | | | | | ABSORPTION, % → | | |
| 3/8" | | 100 | SAND EQUIVALENT VALUE | | | | <input checked="" type="checkbox"/> ASTM D2419 <input type="checkbox"/> AASHTO T176 | SE, % → |
| 1/4" | | | | | | | 81 ** | |
| No.4 | 100 | 95-100 | RESISTANCE TO DEGRADATION | | SMALL COARSE AGGREGATE | GRADING 100 REV., %LOSS → | | |
| 8 | 86 | 80-100 | <input type="checkbox"/> ASTM C131 | <input type="checkbox"/> AASHTO T96 | | GRADING 500 REV., %LOSS → | | |
| 10 | 81 | | | | LARGE COARSE AGGREGATE | GRADING 200 REV., %LOSS → | | |
| 16 | 63 | 50-85 | <input type="checkbox"/> ASTM C535 | | | GRADING 1000 REV., %LOSS → | | |
| 30 | 40 | 25-60 | LIGHTWEIGHT PIECES | | | FINE AGGREGATE, % → | | |
| 40 | 26 | | <input type="checkbox"/> ASTM C123 | <input type="checkbox"/> AASHTO T113 | | COARSE AGGREGATE, % → | | |
| 50 | 16 | 5-30 | CLAY LUMPS & FRIABLE PARTICLES | | | FINE AGGREGATE, % → | | |
| 100 | 4 | 0-10 | <input type="checkbox"/> ASTM C142 | <input type="checkbox"/> AASHTO T112 | | COARSE AGGREGATE, % → | | |
| 200 | 1.1 | 0-3.0 | FRACTURED FACES OF COARSE AGGREGATES BY WEIGHT | | | ONE OR MORE FACES, % → | | |
| LIQUID LIMIT & PLASTIC PROPERTIES | | | | | | TWO OR MORE FACES, % → | | |
| <input type="checkbox"/> ASTM D4318 <input type="checkbox"/> AASHTO T89 & T90 METHOD SAMPLE AIR DRIED <input type="checkbox"/> YES <input type="checkbox"/> NO ESTIMATED % RETAINED ON NO 40 | | | | | | | | |
| LIQUID LIMIT → PLASTIC LIMIT → PLASTICITY INDEX → | | | RESULTS | SPECS | | | | |
| FINENESS MODULUS | | | <input checked="" type="checkbox"/> ASTM C125 | → | 2.91 | 2.3-3.1 | | |
| ORGANIC IMPURITIES | | | DURABILITY INDEX | | | | | |
| <input type="checkbox"/> ASTM C40 PLATE NO. → <input type="checkbox"/> AASHTO T21 | | | <input type="checkbox"/> ASTM D3744 <input type="checkbox"/> AASHTO T210 PROCEDURE : A <input type="checkbox"/> COARSE B <input type="checkbox"/> FINE C <input type="checkbox"/> COARSE & FINE | | | | D _c → D _f → | |
| CLEANNESS VALUE | | | UNCOMPACTED VOID CONTENT | | | | | |
| <input type="checkbox"/> CA 227 → | | | <input type="checkbox"/> AZ 247 | <input type="checkbox"/> ASTM C1252 | METHOD | VC, % → | | |

Comments : **DEPENDENT ON APPLICABLE JOB SPECIFICATIONS

Copies to : CLIENT - (1)

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REVIEWED BY *[Signature]* 3-24-09