

N.U.Q.Q.

NEW ULM QUARTZITE QUARRIES

2011 PRODUCT TEST SUMMARY

PRODUCT: NO. 4 MESH WASHED SAND - CLASS A

GRADATION

NUMBER OF TESTS PERFORMED: 16

DATE OF LAST TEST: 06/20/2011

SIEVES (millimeters in parentheses)	MNDOT SPEC LIMITS	MNDOT SPEC MEDIAN	N.U.Q.Q. RUNNING AVERAGE	STANDARD DEVIATION ABOUT RUNNING AVERAGE	WEIGHTS RETAINED ON INDIVIDUAL SIEVES	CUMULATIVE WEIGHTS RETAINED ON INDIVIDUAL SIEVES
0.375" (9.5)	N/A	N/A	100.0%	0.0%	0.0%	0.0%
#4 (4.75)	N/A	N/A	93.4%	4.7%	6.6%	6.6%
#8 (2.38)	N/A	N/A	79.3%	9.7%	14.1%	20.8%
#16 (1.19)	N/A	N/A	65.6%	10.7%	13.7%	34.4%
#30 (0.59)	N/A	N/A	40.6%	7.6%	24.9%	59.4%
#50 (0.3)	N/A	N/A	15.8%	3.6%	24.8%	84.2%
#100 (0.149)	N/A	N/A	3.8%	1.1%	12.0%	96.2%
#200 (0.075)	N/A	N/A	1.2%	0.3%	2.6%	98.8%

NOTE: VALUES INDICATE THE PERCENT BY WEIGHT PASSING SQUARE OPENING SIEVES - UNLESS OTHERWISE NOTED.

GENERAL QUALITY

QUALITY PARAMETERS	N.U.Q.Q. RUNNING AVERAGE	MNDOT SPEC LIMITS	NOTE
SPECIFIC GRAVITY, (A.S.T.M. C127-88):	2.603	N/A	RELATIVE WEIGHT
FINENESS MODULUS, (A.S.T.M. C136):	3.02	N/A	
COEFFICIENT OF UNIFORMITY:	5.69	N/A	D60 / D10
UNCOMPACTED VOIDS, (A.S.T.M. C1252, METHOD A):	45.3%	N/A	FAA (METHOD A)

QUARTZITE AGGREGATES CONTAIN NO SHALE, IRON OXIDE, SLATE, UNSOUND CHERT OR CLAY BALLS.

NO. 4 MESH WASHED SAND IS 100% CRUSHED OR "MANUFACTURED" SAND.

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SAMPLES AVAILABLE UPON REQUEST