

# N.U.Q.Q.

## NEW ULM QUARTZITE QUARRIES

### 2011 PRODUCT TEST SUMMARY

PRODUCT: FA-2 MODIFIED, (19/64" x #8)

### GRADATION

NUMBER OF TESTS PERFORMED: 8

DATE OF LAST TEST: 05/17/2011

SIEVES (millimeters in parentheses)	MNDOT SPEC LIMITS	MNDOT SPEC MEDIAN	N.U.Q.Q. RUNNING AVERAGE	SAMPLE STANDARD DEVIATION ABOUT RUNNING AVERAGE	N.U.Q.Q. GRADATION TARGET BAND	% OF TESTS INSIDE OF TARGET BAND
0.375" (9.5)	N/A	N/A	100.0%	0.0%	100%	
#4 (4.75)	N/A	N/A	75.8%	5.8%	70% - 82%	75.0%
#8 (2.36)	N/A	N/A	20.8%	6.7%	14% - 27%	75.0%
#16 (1.18)	N/A	N/A	4.8%	3.4%	1% - 8%	62.5%
#50 (0.297)	N/A	N/A	1.0%	1.0%	-0% - 2%	75.0%

FA - 2 Modified also meets M.N.D.O.T. CA - 8  
specification for gradation.

NOTE: VALUES INDICATE THE PERCENT BY WEIGHT PASSING SQUARE OPENING SIEVES.

### GENERAL QUALITY

QUALITY PARAMETERS	N.U.Q.Q. RUNNING AVERAGE	MNDOT SPEC LIMITS	NOTE
L.A.R. ABRASION LOSS, (A.S.T.M. C131-89):	< 30.0%	40% MAX.	TOUGHNESS
MAGNESIUM SULFIDE LOSS, (A.S.T.M. C88-90 - 5 CYCLES):	4.8%	N/A	SOUNDNESS
SPECIFIC GRAVITY, (A.S.T.M. C127-88):	2.590	N/A	BULK SSD
ABSORPTION IN BULK SAMPLE, (A.S.T.M. C126):	< 0.35%	N/A	POROSITY
LOOSE WEIGHT:	78.19	N/A	LBS. / CU. FT.
VOIDS IN LOOSE AGGREGATE:	52.0%	N/A	
200 MESH, (75 MICRON), MATERIAL, (A.S.T.M. C117-90):	0.29%	2.0% MAX.	SURFACE DUST
MEDIAN SIZE:	0.203	N/A	INCHES
AVERAGE LEAST DIM.:	0.132	N/A	INCHES
FLAKINESS INDEX:	19.5%	30.0% MAX.	SHAPE
SUGGESTED AGGREGATE APPLICATION RATE FOR SEAL COAT:	14.0	N/A	LBS. / SQ. YD.

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

This material is washed to reduce P200 material.

NEW ULM QUARTZITE QUARRIES, INC.  
PHONE: (507) 354-2925; FAX: (507) 359-7870  
ROUTE 5, BOX 21, NEW ULM, MN 56073  
SAMPLES AVAILABLE UPON REQUEST