

Assistant Executive Engineer-I,
Central Civil Division, Pak PWD, Gujranwala

Test Performed By: Dr. /Engr.

S. Asad Gillani

Client Reference: AEE-I/CCD/GRW/148

SOM Lab Ref: 2495(Page-1/

Dated: 18-02-2020

Dated: 15-05-2020

Test: Tension Test & Bend Test
Gauge Length: 8 inch

Test Specification: ASTM-A-615
Sample Type: Deformed Bar

| S.No. | Weight | Dia. | | Area | | Yield Load | Ultimate Load | Yield Stress | | Ult. Stress | | Elongation | Gauge Length | %age Elongation |
|-------|--------|---------|------------|-----------------|-----------------|------------|---------------|-----------------------------|------------------------------|-----------------------------|------------------------------|------------|--------------|-----------------|
| | | Nominal | Calculated | Nominal | Calculated | | | (according to nominal area) | (according to measured area) | (according to nominal area) | (according to measured area) | | | |
| | lb/ft | # | in | in ² | in ² | Tons | Tons | psi | psi | psi | psi | in | in | % |
| 1 | 1.026 | 5 | 0.620 | 0.31 | 0.302 | 9.58 | 12.92 | 68170 | 69980 | 91890 | 94320 | 1.10 | 8.0 | 13 |
| 2 | 0.635 | 4 | 0.488 | 0.20 | 0.187 | 5.81 | 7.49 | 64080 | 68530 | 82620 | 88370 | 1.00 | 8.0 | 12 |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

BEND TEST:

| | | |
|-----|--|--|
| # 5 | Sample bend through 180 degrees Satisfactorily without any crack | Note:- Only Four Sample Received and Tes |
| # 4 | Sample bend through 180 degrees Satisfactorily without any crack | |
| | | |
| | | |

Note: Please always confirm the results of above report on web www.uet-civil.edu.pk

Sub Divisional Officer
Buildings Sub Division, Sialkot

Test Performed By: Dr. /Engr.

S. Asad Ali Gillani

Client Reference: 194/ST

SOM Lab

Ref: 2496 (Page-1/1)

Dated: 26-02-2020

Dated: 15-05-2020

Test: Tension Test & Bend Test

Test Specification:

ASTM-A-615

Gauge Length: 8 inch

Sample Type:

Deformed Bar

| S.No. | Weight | Dia. | | Area | | Yield Load | Ultimate Load | Yield Stress | | Ult. Stress | | Elongation | Gauge Length | %age Elongation | Remarks |
|-------|--------|---------|------------|-----------------|-----------------|------------|---------------|-----------------------------|------------------------------|-----------------------------|------------------------------|------------|--------------|-----------------|---------|
| | | Nominal | Calculated | Nominal | Calculated | | | (according to nominal area) | (according to measured area) | (according to nominal area) | (according to measured area) | | | | |
| | lb/ft | # | in | in ² | in ² | Tons | Tons | psi | psi | psi | psi | in | in | % | |
| 1 | 2.668 | 8 | 0.999 | 0.79 | 0.784 | 27.54 | 35.49 | 76900 | 77480 | 99090 | 99850 | 1.40 | 8.0 | 17.5 | |
| 2 | 1.483 | 6 | 0.745 | 0.44 | 0.436 | 14.75 | 20.82 | 73940 | 74610 | 104340 | 105290 | 1.30 | 8.0 | 16.3 | |
| 3 | 0.597 | 4 | 0.472 | 0.20 | 0.175 | 5.83 | 7.41 | 64300 | 73490 | 81720 | 93400 | 1.00 | 8.0 | 12.5 | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

BEND TEST:

| | | |
|-----|--|--|
| # 8 | Sample bend through 180 degrees Satisfactorily without any crack | Note:- Only Six Samples Received and Tested |
| # 6 | Sample bend through 180 degrees Satisfactorily without any crack | |
| # 4 | Sample bend through 180 degrees Satisfactorily without any crack | |
| | | |

Note: Please always confirm the results of above report on web www.uet-civil.edu.pk

Khurram Shahzad
Jr. Engineer (Elect.) SWP, PAEC, D. G. Khan

Test Performed By: Dr. /Engr.

S. Asad Ali
Gillani

Client Reference: SWP/W(2370)/2019/2851

SOM Lab

Ref: 2497 (Page-1/1)

Dated: 08-05-2020

Dated: 15-05-2020

Test: Tension Test & Bend Test

Test Specification:

ASTM-A-615

Deformed

Gauge Length: 8 inch

Sample Type:

Bar

| S.No. | Weight | Dia. | | Area | | Yield Load | Ultimate Load | Yield Stress | | Ult. Stress | | Elongation | Gauge Length | %age Elongation | Remarks |
|-------|--------|---------|------------|-----------------|-----------------|------------|---------------|-----------------------------|------------------------------|-----------------------------|------------------------------|------------|--------------|-----------------|---------|
| | | Nominal | Calculated | Nominal | Calculated | | | (according to nominal area) | (according to measured area) | (according to nominal area) | (according to measured area) | | | | |
| | lb/ft | # | in | in ² | in ² | Tons | Tons | psi | psi | psi | psi | in | in | % | |
| 1 | 1.438 | 6 | 0.734 | 0.44 | 0.423 | 15.16 | 19.06 | 75980 | 79030 | 95550 | 99390 | 1.20 | 8.0 | 15.0 | |
| 2 | 1.419 | 6 | 0.729 | 0.44 | 0.417 | 14.19 | 18.60 | 71130 | 75050 | 93250 | 98390 | 1.10 | 8.0 | 13.8 | |
| 3 | 0.636 | 4 | 0.488 | 0.20 | 0.187 | 6.03 | 7.85 | 66550 | 71170 | 86560 | 92570 | 0.90 | 8.0 | 11.3 | |
| 4 | 0.635 | 4 | 0.488 | 0.20 | 0.187 | 5.83 | 7.77 | 64300 | 68770 | 85660 | 91610 | 0.90 | 8.0 | 11.3 | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |

BEND TEST:

| | | |
|-----|--|--|
| # 6 | Sample bend through 180 degrees Satisfactorily without any crack | Note:- Only Six Samples Received and Tested |
| # 4 | Sample bend through 180 degrees Satisfactorily without any crack | |
| | | |
| | | |

Note: Please always confirm the results of above report on web www.uet-civil.edu.pk

Consultant Engineer

MNS-university of Agriculture, Multan (G3 Engineering Consultant (Pvt) Ltd)

Test Performed By:

Dr. /Engr.

S. Asad Ali
Gillani

Client Reference: G3/RE/MNS-UAM/07320

Dated: 07-03-2020

Test: Tension Test & Bend Test

Test Specification:

SOM Lab

Ref:

2498(Page-1/1)

Dated:

15-05-2020

ASTM-A-615

Deformed

Bar

Gauge Length:

8 inch

Sample Type:

| S.No. | Weight | Dia. | | Area | | Yield Load | Ultimate Load | Yield Stress | | Ult. Stress | | Elongation | Gauge Length | %age Elongation | Remarks |
|-------|--------|---------|------------|-----------------|-----------------|------------|---------------|-----------------------------|------------------------------|-----------------------------|------------------------------|------------|--------------|-----------------|---------|
| | | Nominal | Calculated | Nominal | Calculated | | | (according to nominal area) | (according to measured area) | (according to nominal area) | (according to measured area) | | | | |
| | lb/ft | # | in | in ² | in ² | Tons | Tons | psi | psi | psi | psi | in | in | % | |
| 1 | 2.679 | 8 | 1.001 | 0.79 | 0.787 | 26.30 | 35.34 | 73420 | 73700 | 98660 | 99040 | 1.40 | 8.0 | 17.5 | |
| 2 | 1.492 | 6 | 0.747 | 0.44 | 0.438 | 13.35 | 18.96 | 66940 | 67240 | 95040 | 95470 | 1.30 | 8.0 | 16.3 | |
| 3 | 0.673 | 4 | 0.502 | 0.20 | 0.198 | 7.05 | 9.55 | 77790 | 78570 | 105330 | 106390 | 1.10 | 8.0 | 13.8 | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |

BEND TEST:

| | | |
|-----|--|--|
| # 8 | Sample bend through 180 degrees Satisfactorily without any crack | Note:- Only Six Samples Received and Tested |
| # 6 | Sample bend through 180 degrees Satisfactorily without any crack | |
| # 4 | Sample bend through 180 degrees Satisfactorily without any crack | |
| | | |

Note: Please always confirm the results of above report on web www.uet-civil.edu.pk