

M Ahsan

Test Performed By:

Dr. /Engr.

S. Asad Ali Gillani

T. O. C's

Client Reference: Nil

Dated: 12-05-2020

SOM Lab Ref: CED/SOM/2483(Page-1/1)

Dated: 12-05-2020

Test: Tension Test & Bend Test

Test Specification: ASTM-A 615

Sample Type: Deformed Steel Bar

Gauge Length: 200 mm

| 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) | | | | |
| | kg/m | mm | mm | mm ² | mm ² | kN | kN | MPa | MPa | MPa | MPa | mm | mm | % | |
| 1 | 2.237 | 20 | 19.05 | 314 | 285 | 189.70 | 215.00 | 604 | 666 | 684 | 755 | 25.0 | 200 | 12.5 | |
| 2 | 2.212 | 20 | 18.94 | 314 | 282 | 189.80 | 218.50 | 604 | 674 | 696 | 776 | 25.0 | 200 | 12.5 | |
| 3 | 1.077 | 12 | 13.22 | 113 | 137 | 76.00 | 92.20 | 672 | 554 | 815 | 673 | 25.0 | 200 | 12.5 | |
| 4 | 1.073 | 12 | 13.19 | 113 | 137 | 82.70 | 101.00 | 731 | 606 | 893 | 739 | 27.5 | 200 | 13.8 | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |

BEND TEST:

| | | |
|------|--|---|
| 20mm | Sample bend through 180 degrees Satisfactorily without any crack | Note:- Only Six Samples Received and Tested |
| 12mm | 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

Executive Engineer,
Highway Mechanical Division, Lahore

Test Performed By: Dr. /Engr.

S. Asad Ali
Gillani

Client Reference: 1470/CB

SOM Lab Ref: 2478,(Page-1/1)

Dated: 04-05-2020

Dated: 12-05-2020

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 | 1.516 | 6 | 0.754 | 0.44 | 0.446 | 15.87 | 21.25 | 79560 | 78490 | 106530 | 105100 | 1.20 | 8.0 | 15.0 | |
| 2 | 1.516 | 6 | 0.754 | 0.44 | 0.446 | 15.70 | 21.25 | 78690 | 77630 | 106530 | 105100 | 1.10 | 8.0 | 13.8 | |
| 3 | 0.587 | 4 | 0.469 | 0.20 | 0.173 | 6.24 | 7.67 | 68800 | 79530 | 84530 | 97730 | 1.20 | 8.0 | 15.0 | |
| 4 | 0.584 | 4 | 0.468 | 0.20 | 0.172 | 6.37 | 7.70 | 70260 | 81690 | 84870 | 98690 | 1.00 | 8.0 | 12.5 | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |

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

Umair Maqsood
Sub Divisional Officer, Building Sub Division, Assembly, Lahore

Test Performed By: Dr. /Engr.

S Asad Ali
Gillani

Client Reference: 2463-

Dated: 09-05-2020

Test: Tension Test & Bend Test

Gauge Length: 8 inch

Test Specification:

Sample Type:

SOM Lab

Ref: 2479 (Page-1/1)

Dated: 12-05-2020

ASTM-A-615

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 | 2.688 | 8 | 1.003 | 0.79 | 0.790 | 26.40 | 35.44 | 73710 | 73710 | 98950 | 98950 | 1.40 | 8.0 | 17.5 | |
| 2 | 1.505 | 6 | 0.750 | 0.44 | 0.442 | 13.25 | 18.86 | 66430 | 66130 | 94530 | 94100 | 1.30 | 8.0 | 16.3 | |
| 3 | 0.678 | 4 | 0.503 | 0.20 | 0.199 | 6.44 | 8.63 | 71040 | 71400 | 95210 | 95690 | 1.20 | 8.0 | 15.0 | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |

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

Lt. Col Muhammad Usman Iqbal
ADH (Works)-IV, Lahore

Test Performed By: Dr. /Engr.

S. Asad Ali Gillani

Client Reference: 616/Proj/UET/Steel/Sample/ADH-IV

SOM Lab

Ref: 2480,(Page-1/1)

Dated: 12-05-2020

Dated:

12-05-2020

Test: Tension Test & Bend Test

Test Specification:

ASTM-A-615

Gauge Length: 8 inch

Sample Type:

Deformed Bar(Batala & Ittfaq Steel)

| 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 | 0.662 | 4 | 0.498 | 0.20 | 0.195 | 5.32 | 7.65 | 58680 | 60180 | 84310 | 86470 | 1.60 | 8.0 | 20.0 | Bat |
| 2 | 0.653 | 4 | 0.494 | 0.20 | 0.192 | 5.32 | 7.59 | 58680 | 61120 | 83750 | 87240 | 1.60 | 8.0 | 20.0 | Bat |
| 3 | 0.632 | 4 | 0.487 | 0.20 | 0.186 | 5.12 | 7.54 | 56430 | 60680 | 83180 | 89450 | 1.60 | 8.0 | 20.0 | Itte |
| 4 | 0.641 | 4 | 0.489 | 0.20 | 0.188 | 5.25 | 7.61 | 57890 | 61590 | 83970 | 89330 | 1.50 | 8.0 | 18.8 | Itte |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |

BEND TEST:

| | |
|-----|--|
| # 4 | Sample bend through 180 degrees Satisfactorily without any crack |
| # 4 | Sample bend through 180 degrees Satisfactorily without any crack |
| | |
| | |
| | |

Note:-

Only Six Samples Received and Tested

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

Director Projects

Innovative® Construction Company, Lahore(Construction of Intiaz Super Markeet, Gujrat)

Test Performed By:

Dr. /Engr.

S Asad Ali
Gillani

Client Reference: ICL/ISM/GJT/05/01

Dated: 12-05-2020

Test: Tension Test & Bend Test

Test Specification:

SOM Lab

Ref: 2481(Page-1/1)

Dated: 12-05-2020

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 | 2.570 | 8 | 0.980 | 0.79 | 0.755 | 27.88 | 36.70 | 77830 | 81440 | 102450 | 107200 | 1.40 | 8.0 | 17.5 | |
| 2 | 1.478 | 6 | 0.743 | 0.44 | 0.434 | 16.11 | 22.94 | 80730 | 81850 | 114960 | 116550 | 1.00 | 8.0 | 12.5 | |
| 3 | 1.039 | 5 | 0.623 | 0.31 | 0.305 | 11.06 | 13.43 | 78690 | 79980 | 95510 | 97080 | 1.10 | 8.0 | 13.8 | |
| 4 | 0.655 | 4 | 0.494 | 0.20 | 0.192 | 6.85 | 8.63 | 75540 | 78690 | 95210 | 99180 | 1.00 | 8.0 | 12.5 | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |

BEND TEST:

| | | |
|-----|--|--|
| # 8 | Sample bend through 180 degrees Satisfactorily without any crack | Note:- Only Eight Samples Received and Tested |
| # 6 | Sample bend through 180 degrees Satisfactorily without any crack | |
| # 5 | 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

