

Resident Engineer/Team Leader

Test Performed By:

Dr. /Engr.

S. Asad Ali Gillani

Prime Engineering Consultancy, Kallurkot Bidge Project

Client Reference: KK-DIK-BR-PJ/2021/271

Dated: 15-03-2021

SOM Lab Ref: CED/SOM/3999(Page-1/1)

Dated: 16-03-2021

Test: Tension Test & bend Test

Test Specification: ASTM-A 615

Sample Type: Deformed Bar(Pak Steel)

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 | 3.904 | 25 | 25.16 | 491 | 497 | 268.70 | 345.00 | 547 | 541 | 703 | 695 | 35.0 | 200 | 17.5 | |
| 2 | 0.957 | 12 | 12.46 | 113 | 122 | 63.00 | 89.00 | 557 | 517 | 787 | 731 | 27.5 | 200 | 13.8 | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |

BEND TEST:

| | | |
|------|--|--|
| 25mm | Sample bend through 180 degrees Satisfactorily without any crack | Note:- Only Four Samples Received and Tested |
| 16mm | 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

Sajid Khawaja
Resident Engineer, EA Consulting (Pvt) Ltd.

Test Performed By: Dr. /Engr.

S. Asad Ali
Gillani

Client Reference: EA/FGEHA/LHE/109

Dated: 12-03-2021

SOM Lab

Ref: 4038(Page-1/1)

Dated: 16-03-2021

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 | 2.654 | 8 | 0.997 | 0.79 | 0.780 | 30.07 | 38.38 | 83950 | 85030 | 107140 | 108520 | 1.30 | 8.0 | 16.3 | |
| 2 | 2.667 | 8 | 0.999 | 0.79 | 0.784 | 29.56 | 36.39 | 82530 | 83160 | 101600 | 102370 | 1.20 | 8.0 | 15.0 | |
| 3 | 2.661 | 8 | 0.998 | 0.79 | 0.782 | 30.07 | 38.20 | 83950 | 84810 | 106630 | 107720 | 1.10 | 8.0 | 13.8 | |
| 4 | 1.499 | 6 | 0.749 | 0.44 | 0.441 | 18.55 | 22.43 | 92990 | 92780 | 112410 | 112150 | 1.00 | 8.0 | 12.5 | |
| 5 | 1.500 | 6 | 0.749 | 0.44 | 0.441 | 18.65 | 22.53 | 93510 | 93290 | 112920 | 112660 | 1.00 | 8.0 | 12.5 | |
| 6 | 1.485 | 6 | 0.745 | 0.44 | 0.436 | 18.25 | 22.29 | 91460 | 92300 | 111750 | 112770 | 1.20 | 8.0 | 15.0 | |
| 7 | 0.694 | 4 | 0.510 | 0.20 | 0.204 | 7.54 | 9.45 | 83180 | 81550 | 104200 | 102160 | 1.00 | 8.0 | 12.5 | |
| 8 | 0.701 | 4 | 0.512 | 0.20 | 0.206 | 7.54 | 9.38 | 83180 | 80760 | 103420 | 100410 | 1.00 | 8.0 | 12.5 | |
| 9 | 0.694 | 4 | 0.510 | 0.20 | 0.204 | 7.44 | 9.30 | 82060 | 80450 | 102520 | 100510 | 1.10 | 8.0 | 13.8 | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |

BEND TEST:

| | | |
|-----|--|--|
| # 8 | Sample bend through 180 degrees Satisfactorily without any crack | Note:- Only Twelve 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

Muhammad Usama
Resident Engineer, NESPAK (Pvt) Ltd., Islamabad

Test Performed By: Dr. /Engr.

S. Asad Ali
Gillani

Client Reference: 4026/325/MU/Misc/04

Dated: 10-03-2021

SOM Lab

Ref: 4039(Page-1/1)

Dated: 16-03-2021

Test: Tension Test & Bend Test

Test Specification:

ASTM-A-615

Gauge Length: 8 inch

Sample Type:

Deformed Bar (Mughal 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 | 1.510 | 6 | 0.752 | 0.44 | 0.444 | 14.04 | 19.03 | 70360 | 69730 | 95400 | 94540 | 1.20 | 8.0 | 15.0 | |
| 2 | 1.507 | 6 | 0.751 | 0.44 | 0.443 | 14.07 | 19.16 | 70510 | 70040 | 96060 | 95410 | 1.30 | 8.0 | 16.3 | |
| 3 | 1.047 | 5 | 0.626 | 0.31 | 0.308 | 10.47 | 14.17 | 74480 | 74970 | 100810 | 101460 | 1.20 | 8.0 | 15.0 | |
| 4 | 1.041 | 5 | 0.624 | 0.31 | 0.306 | 10.50 | 14.27 | 74700 | 75680 | 101530 | 102860 | 1.10 | 8.0 | 13.8 | |
| 5 | 0.669 | 4 | 0.501 | 0.20 | 0.197 | 7.10 | 8.92 | 78350 | 79540 | 98360 | 99860 | 1.00 | 8.0 | 12.5 | |
| 6 | 0.676 | 4 | 0.503 | 0.20 | 0.199 | 6.90 | 8.89 | 76100 | 76490 | 98020 | 98510 | 1.10 | 8.0 | 13.8 | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |

BEND TEST:

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

Sub Divisional Officer
Buildings Sub Division No. 15, Lahore

Test Performed By: Dr. /Engr. S Ali Gillani

Client Reference: 260-

SOM Lab

Ref: 4040(Page-1/1)

Dated: 15-03-2021

Dated: 16-03-2021

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 | 2.641 | 8 | 0.994 | 0.79 | 0.776 | 21.68 | 33.51 | 60530 | 61620 | 93540 | 95230 | 1.40 | 8.0 | 17.5 | |
| 2 | 2.645 | 8 | 0.995 | 0.79 | 0.777 | 21.81 | 33.56 | 60900 | 61920 | 93680 | 95250 | 1.30 | 8.0 | 16.3 | |
| 3 | 1.504 | 6 | 0.750 | 0.44 | 0.442 | 14.22 | 19.27 | 71280 | 70960 | 96570 | 96130 | 1.30 | 8.0 | 16.3 | |
| 4 | 1.461 | 6 | 0.739 | 0.44 | 0.429 | 13.00 | 17.66 | 65150 | 66820 | 88500 | 90770 | 1.30 | 8.0 | 16.3 | |
| 5 | 0.665 | 4 | 0.498 | 0.20 | 0.195 | 6.32 | 8.43 | 69700 | 71480 | 92960 | 95350 | 1.20 | 8.0 | 15.0 | |
| 6 | 0.663 | 4 | 0.498 | 0.20 | 0.195 | 6.34 | 8.43 | 69920 | 71710 | 92960 | 95350 | 1.20 | 8.0 | 15.0 | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |

BEND TEST:

| | | |
|----|------------------------|---|
| -- | No Bend test performed | Note:- Only Six Samples Received and Tested |
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Note: Please always confirm the results of above report on web www.uet-civil.edu.pk

Habib Jilani Vance
 Project Director, Divisional Public School & College, Sahiwal

Test Performed By: Dr. /Engr.

S. Asad Ali
Gillani

Client Reference: ESTB/45/4935

Dated: 10-03-2021

Test: Tension Test

Gauge Length: 8 inch

SOM Lab

Ref: 4041(Page-1/1)

Dated: 16-03-2021

Test Specification: ASTM-A-615

Sample Type:

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 | 2.670 | 8 | 1.000 | 0.79 | 0.785 | 27.32 | 34.53 | 76270 | 76760 | 96390 | 97000 | 1.50 | 8.0 | 18.8 | |
| 2 | 2.673 | 8 | 1.000 | 0.79 | 0.786 | 27.08 | 34.20 | 75610 | 76000 | 95480 | 95960 | 1.40 | 8.0 | 17.5 | |
| 3 | 1.528 | 6 | 0.756 | 0.44 | 0.449 | 14.60 | 19.22 | 73170 | 71700 | 96320 | 94380 | 1.60 | 8.0 | 20.0 | |
| 4 | 1.508 | 6 | 0.751 | 0.44 | 0.443 | 15.51 | 20.13 | 77770 | 77240 | 100910 | 100230 | 1.50 | 8.0 | 18.8 | |
| 5 | 0.698 | 4 | 0.511 | 0.20 | 0.205 | 7.49 | 9.43 | 82620 | 80610 | 103980 | 101440 | 1.10 | 8.0 | 13.8 | |
| 6 | 0.696 | 4 | 0.511 | 0.20 | 0.205 | 7.51 | 9.48 | 82850 | 80830 | 104540 | 101990 | 1.20 | 8.0 | 15.0 | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |

BEND TEST:

| | | |
|----|------------------------|---|
| -- | No Bend test performed | Note:- Only Six Samples Received and Tested |
| | | |
| | | |
| | | |

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

Engr. Faizan Shoukat
 Engineer in Bcharge, PMBMC, Lahore

Test Performed By: Dr. /Engr. S Asad Ali Gillani

Client Reference: CS/MB/2/PKPTN/NMB/CONS/03/15
 Dated: 15-03-2021
 Test: Tension Test & Bend Test
 Gauge Length: 8 inch

SOM Lab
 Ref: 4042(Page-1/1)
 Dated: 16-03-2021
 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 | 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 | 0.607 | 4 | 0.476 | 0.20 | 0.178 | 4.25 | 6.39 | 46880 | 52670 | 70480 | 79190 | 1.40 | 8.0 | 17.5 | |
| 2 | 0.596 | 4 | 0.472 | 0.20 | 0.175 | 4.35 | 6.42 | 48000 | 54860 | 70820 | 80940 | 1.40 | 8.0 | 17.5 | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

BEND TEST:

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

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

Engr. Muddasir Tahir
Construction Manager, Zameen Aurum, Lahore

Test Performed By: Dr. /Engr. S. Asad Ali Gillani

Client Reference: ZD/ZA/STR005

SOM Lab

Ref: 4043(Page-1/1)

Dated: 16-03-2021

Dated: 16-03-2021

Test: Tension Test & Bend Test

Test Specification:

ASTM-A-615

Gauge Length: 8 inch

Sample Type:

Deformed Bar (Batala 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 | 2.663 | 8 | 0.998 | 0.79 | 0.783 | 26.22 | 38.25 | 73200 | 73850 | 106780 | 107730 | 1.20 | 8.0 | 15.0 | |
| 2 | 2.652 | 8 | 0.996 | 0.79 | 0.779 | 24.23 | 36.09 | 67650 | 68600 | 100740 | 102160 | 1.40 | 8.0 | 17.5 | |
| 3 | 1.489 | 6 | 0.747 | 0.44 | 0.438 | 13.37 | 19.49 | 67040 | 67350 | 97690 | 98140 | 1.30 | 8.0 | 16.3 | |
| 4 | 1.494 | 6 | 0.748 | 0.44 | 0.439 | 13.88 | 19.93 | 69590 | 69750 | 99890 | 100120 | 1.30 | 8.0 | 16.3 | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |

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 | |
| | | |
| | | |

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

Murad Bhan(Project Manager)

Test Performed By: Dr. /Engr. S. Asad Ali Gillani

IIW Industrial Engrs & Contractors, (Const: of 2 Nos Petroleum Tanks with Allied works at PSO Machike)

Client Reference: nil

SOM Lab Ref: 4044(Page-1/1)

Dated: 16-03-2021

Dated: 16-03-2021

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 | 2.657 | 8 | 0.997 | 0.79 | 0.781 | 26.20 | 34.25 | 73140 | 73980 | 95620 | 96720 | 1.10 | 8.0 | 13.8 | |
| 2 | 2.681 | 8 | 1.002 | 0.79 | 0.788 | 26.81 | 34.53 | 74850 | 75040 | 96390 | 96630 | 1.20 | 8.0 | 15.0 | |
| 3 | 1.023 | 5 | 0.619 | 0.31 | 0.301 | 10.52 | 13.61 | 74840 | 77080 | 96820 | 99710 | 1.20 | 8.0 | 15.0 | |
| 4 | 1.036 | 5 | 0.622 | 0.31 | 0.304 | 10.14 | 13.22 | 72160 | 73590 | 94060 | 95920 | 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 |
| # 5 | 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

Adil Jamal

Test Performed By:

Dr. /Engr.

S. Asad Ali Gillani

Project Manager, MA Engg. Services, Lahore(Project: Commercial Plaza at Al Rehman Garden Lahore)

Client Reference: MA/UETL/011

SOM Lab

Ref:

4045 (Page-1/1)

Dated: 16-03-2021

Dated:

16-03-2021

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 | 2.558 | 8 | 0.979 | 0.79 | 0.752 | 21.68 | 32.54 | 60530 | 63590 | 90840 | 95430 | 1.30 | 8.0 | 16.3 | |
| 2 | 2.606 | 8 | 0.988 | 0.79 | 0.766 | 22.73 | 34.02 | 63460 | 65450 | 94970 | 97940 | 1.50 | 8.0 | 18.8 | |
| 3 | 0.666 | 4 | 0.500 | 0.20 | 0.196 | 6.34 | 8.12 | 69920 | 71350 | 89590 | 91420 | 1.10 | 8.0 | 13.8 | |
| 4 | 0.642 | 4 | 0.491 | 0.20 | 0.189 | 6.93 | 8.33 | 76440 | 80890 | 91840 | 97180 | 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 |
| # 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

M Umar
Lahore

Test Performed By:

Dr. /Engr.

S. Asad Ali
Gillani

Client Reference: nil

Dated: 16-03-2021

Test: Tension Test & Bend Test

Gauge Length: 8 inch

Test Specification:

Sample Type:

SOM Lab

Ref:

4047(Page-1/1)

Dated:

16-03-2021

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 | 1.609 | 6 | 0.776 | 0.44 | 0.473 | 15.97 | 22.58 | 80070 | 74480 | 113180 | 105280 | 1.00 | 8.0 | 12.5 | |
| 2 | 0.654 | 4 | 0.494 | 0.20 | 0.192 | 6.52 | 8.53 | 71940 | 74940 | 94090 | 98010 | 1.40 | 8.0 | 17.5 | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |

BEND TEST:

| | | |
|-----|--|---|
| # 6 | Sample bend through 180 degrees Satisfactorily without any crack | Note:- Only Two 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

Umer Ghazanfar Malik,(Retd.)

Test Performed By:

Dr. /Engr.

S Asad Ali Gillani

Lieutenant Colonel, Additional Director Development, DHA Phaes-XI (Rehbar) Lahore

Client Reference: 700/3/Girls School/Ph-XI/Projs/4410

SOM Lab

Ref:

4049(Page-1/1)

Dated: 16-03-2021

Dated:

16-03-2021

Test: Tension Test & Bend Test

Test Specification:

ASTM-A-615

Gauge Length: 8 inch

Sample Type:

Deformed Bar (Kamran 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 | 0.669 | 4 | 0.501 | 0.20 | 0.197 | 6.17 | 8.89 | 68010 | 69050 | 98020 | 99510 | 1.10 | 8.0 | 13.8 | |
| 2 | 0.666 | 4 | 0.500 | 0.20 | 0.196 | 5.83 | 7.95 | 64300 | 65610 | 87680 | 89470 | 1.00 | 8.0 | 12.5 | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |

BEND TEST:

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

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