

Resident Engineer/Team Leader
 Prime Engineering Consultancy, Kallurkot Bridge Project

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

Client Reference: KK-DIK-BR-PJ/2020/213
 SOM Lab Ref: CED/SOM/3459(Page-1/1)
 Test: Tension Test & bend Test
 Sample Type: Deformed Bar(Pak Steel)

Dated: 17-12-2020
 Dated: 18-12-2020
 Test Specification: ASTM-A 615
 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 | 1.557 | 16 | 15.88 | 201 | 198 | 102.70 | 134.50 | 511 | 519 | 669 | 680 | 30.0 | 200 | 15.0 | |
| 2 | 1.543 | 16 | 15.82 | 201 | 197 | 103.40 | 134.00 | 514 | 527 | 666 | 682 | 27.5 | 200 | 13.8 | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

BEND TEST:

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|------|--|---|
| 16mm | 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

ABDUL ALI Associate Manager C., R & M, Allied Bank Ltd. Engg Cell, South - II, Abdali Tower, Abdali Road, Multan

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

Client Reference: nil

SOM Lab 3460,3471(Page-

Dated: 15-12-2020

Ref: 1/1)

Dated: 21-12-2020

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 | 2.689 | 8 | 1.003 | 0.79 | 0.790 | 31.47 | 37.33 | 87850 | 87850 | 104210 | 104210 | 0.90 | 8.0 | 11.3 | |
| 2 | 2.666 | 8 | 0.998 | 0.79 | 0.783 | 31.47 | 38.09 | 87850 | 88640 | 106350 | 107300 | 0.90 | 8.0 | 11.3 | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |

BEND TEST:

| | | |
|-----|--|---|
| # 8 | 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

Ahmad Hamdan
Resident Engineer, 402/F, Shah Rukene Alam Colony, Multan

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

Client Reference: 4068/01/AH/01/57

SOM Lab Ref: 3462(Page-1/1)

Dated: 15-12-2020

Dated: 18-12-2020

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 | 1.064 | 5 | 0.631 | 0.31 | 0.313 | 11.54 | 14.42 | 82100 | 81310 | 102620 | 101640 | 1.30 | 8.0 | 16.3 | |
| 2 | 1.067 | 5 | 0.632 | 0.31 | 0.314 | 11.44 | 14.27 | 81370 | 80330 | 101530 | 100240 | 1.20 | 8.0 | 15.0 | |
| 3 | 0.581 | 4 | 0.467 | 0.20 | 0.171 | 4.66 | 7.46 | 51370 | 60090 | 82290 | 96240 | 1.30 | 8.0 | 16.3 | |
| 4 | 0.586 | 4 | 0.468 | 0.20 | 0.172 | 4.76 | 7.49 | 52500 | 61040 | 82620 | 96070 | 1.40 | 8.0 | 17.5 | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |

BEND TEST:

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|-----|--|
| # 5 | Sample bend through 180 degrees Satisfactorily without any crack |
| # 4 | Sample bend through 180 degrees Satisfactorily without any crack |
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Note:-
Only Six Samples Received and Tested

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

Director Development

Test Performed By: Dr. /Engr.

S. Asad Ali Gillani

Punjab Employees Social Security Institution (Head Office) 3/A, Gulberg-V, Lahore

Client Reference: SS. DC/835

SOM Lab

Ref: 3463(Page-1/1)

Dated: 11-12-2020

Dated: 18-12-2020

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 | 1.500 | 6 | 0.749 | 0.44 | 0.441 | 13.61 | 22.09 | 68210 | 68060 | 110720 | 110470 | 1.10 | 8.0 | 13.8 | |
| 2 | 0.660 | 4 | 0.497 | 0.20 | 0.194 | 5.83 | 8.87 | 64300 | 66290 | 97800 | 100820 | 1.10 | 8.0 | 13.8 | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

BEND TEST:

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

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

Maj Adnan khalid®

Test Performed By: Dr. /Engr.

S. Asad Ali Gillani

By Dir MTL, Proposed Commercial Plaza. DRGCC Ph-III, DHA -VI - (M/S Construct)

SOM Lab

Client Reference: 408/241/E/Lab/1066/6224

Ref: 3464(Page-1/1)

Dated: 08-12-2020

Dated: 18-12-2020

Test: Tension Test & Bend Test

Test Specification:

ASTM-A-615

Deformed Bar (Kamran Steel)

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 | 1.497 | 6 | 0.748 | 0.44 | 0.440 | 13.86 | 18.96 | 69490 | 69490 | 95040 | 95040 | 1.40 | 8.0 | 17.5 | |
| 2 | 1.498 | 6 | 0.748 | 0.44 | 0.440 | 13.71 | 18.83 | 68730 | 68730 | 94370 | 94370 | 1.30 | 8.0 | 16.3 | |
| 3 | 0.670 | 4 | 0.501 | 0.20 | 0.197 | 6.78 | 8.74 | 74750 | 75890 | 96340 | 97800 | 1.10 | 8.0 | 13.8 | |
| 4 | 0.666 | 4 | 0.500 | 0.20 | 0.196 | 6.68 | 8.82 | 73630 | 75130 | 97230 | 99220 | 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 | |
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| Note: Please always confirm the results of above report on web www.uet-civil.edu.pk | |

Test Performed by: .Dr. Nauman Khurram

Muheen-Ur-Rehman
Progress Dynamics (Pvt.) Ltd.
Lahore
(Project: Unibuild)

Client Reference No.: nil

Dated: nil

SOM Lab Ref: CED/SOM/3461 (Page 1/1)

Dated: 18-12-2020

Test Type: Tensile Test

Sample Type: Nut Bolt (10mm)

Tensile Test Results

| Sample No. | Sample Type | Tested Diameter of Bolt (mm) | Ultimate Load (kN) | Ultimate Tensile Stress (MPa) | % Elongation |
|-------------------|--------------------|-------------------------------------|---------------------------|--------------------------------------|---------------------|
| 1 | Nut Bolt (10mm) | 7.9 | 42.2 | 860 | 10.0 |

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