

ESS-I-AAR Consultant

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

RE Bwp.(Const Of Bridge Over Bahawalpur Canal Tehsil H/Q Hospital Khairpur Tamewali)

Client Reference: RE/ADP/BWP/1705A

SOM Lab

Ref: 2506 (Page-1/1)

Dated: 24-06-2023

Dated: 26-06-2023

Test: Tension Test & Bend Test

Test Specification: ASTM-A-615

Deformed Bar (FF

Gauge Length: 8 inch

Sample Type: 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 | 2.675 | 8 | 1.000 | 0.79 | 0.786 | 25.35 | 34.37 | 70780 | 71140 | 95960 | 96450 | 1.60 | 8.00 | 20.00 | |
| 2 | 2.657 | 8 | 0.997 | 0.79 | 0.781 | 25.20 | 34.07 | 70350 | 71160 | 95110 | 96200 | 1.40 | 8.00 | 17.05 | |
| 3 | 1.467 | 6 | 0.741 | 0.44 | 0.431 | 14.60 | 18.81 | 73170 | 74700 | 94270 | 96240 | 1.30 | 8.00 | 16.03 | |
| 4 | 1.462 | 6 | 0.740 | 0.44 | 0.430 | 13.30 | 19.49 | 66680 | 68230 | 97690 | 99970 | 1.20 | 8.00 | 15.00 | |
| 5 | 1.043 | 5 | 0.625 | 0.31 | 0.307 | 9.73 | 13.12 | 69260 | 69940 | 93340 | 94250 | 1.40 | 8.00 | 17.05 | |
| 6 | 1.038 | 5 | 0.623 | 0.31 | 0.305 | 9.73 | 13.22 | 69260 | 70400 | 94060 | 95600 | 1.30 | 8.00 | 16.03 | |
| 7 | 0.673 | 4 | 0.502 | 0.20 | 0.198 | 6.42 | 8.66 | 70820 | 71540 | 95550 | 96510 | 1.30 | 8.00 | 16.03 | |
| 8 | 0.672 | 4 | 0.501 | 0.20 | 0.197 | 6.32 | 8.61 | 69700 | 70760 | 94990 | 96430 | 1.30 | 8.00 | 16.03 | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |

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 | |
| # 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

Sajid Hussain Sadiq

Test Performed By:

Dr. /Engr.

Asad Ali Gillani

SE Sitara Heights.(Project "3 Jays Tower Firdous Market Gulberg 3 Lahore)

Client Reference: SHPL/3JAYS/LHR/18

SOM Lab

Ref:

2508 (Page-1/1)

Dated: 26-06-2023

Dated:

26-06-2023

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 | 2.655 | 8 | 0.997 | 0.79 | 0.780 | 25.89 | 33.97 | 72290 | 73210 | 94820 | 96040 | 1.50 | 8.00 | 18.8 | |
| 2 | 2.648 | 8 | 0.995 | 0.79 | 0.778 | 25.89 | 34.17 | 72290 | 73400 | 95390 | 96860 | 1.40 | 8.00 | 17.5 | |
| 3 | 1.542 | 6 | 0.759 | 0.44 | 0.453 | 15.44 | 20.23 | 77410 | 75190 | 101420 | 98510 | 1.20 | 8.00 | 15.0 | |
| 4 | 1.517 | 6 | 0.754 | 0.44 | 0.446 | 15.14 | 19.83 | 75880 | 74860 | 99380 | 98040 | 1.20 | 8.00 | 15.0 | |
| 5 | 0.671 | 4 | 0.501 | 0.20 | 0.197 | 6.57 | 8.53 | 72510 | 73610 | 94090 | 95520 | 1.00 | 8.00 | 12.5 | |
| 6 | 0.659 | 4 | 0.497 | 0.20 | 0.194 | 6.60 | 8.56 | 72730 | 74980 | 94420 | 97340 | 1.10 | 8.00 | 13.8 | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |

BEND TEST:

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

Sheikh Maqbool,RE

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

Nespak Lahore.(Const Of 8-Lane Overhead Bridge at Imamia Colony Railway Crossing,Shahdra)

Client Reference: 4537/02/MH/Lab/01

SOM Lab

Ref: 2509 (Page-1/2)

Dated: 16-06-2023

Dated: 26-06-2023

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 | 2.663 | 8 | 0.998 | 0.79 | 0.783 | 27.32 | 35.17 | 76270 | 76950 | 98180 | 99060 | 1.20 | 8.00 | 15.00 | |
| 2 | 2.651 | 8 | 0.996 | 0.79 | 0.779 | 25.89 | 34.45 | 72290 | 73310 | 96190 | 97550 | 1.60 | 8.00 | 20.00 | |
| 3 | 1.500 | 6 | 0.749 | 0.44 | 0.441 | 15.97 | 20.15 | 80070 | 79890 | 101020 | 100790 | 1.20 | 8.00 | 15.00 | |
| 4 | 1.496 | 6 | 0.748 | 0.44 | 0.440 | 15.85 | 20.05 | 79450 | 79450 | 100500 | 100500 | 1.30 | 8.00 | 16.03 | |
| 5 | 0.673 | 4 | 0.502 | 0.20 | 0.198 | 8.26 | 10.01 | 91050 | 91970 | 110390 | 111500 | 1.00 | 8.00 | 12.05 | |
| 6 | 0.668 | 4 | 0.500 | 0.20 | 0.196 | 7.03 | 8.99 | 77560 | 79150 | 99150 | 101170 | 1.10 | 8.00 | 13.08 | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |

Witnessed By: Muhammad Bilal ,ME (NESPAK)

BEND TEST:

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

Sheikh Maqbool,RE

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

NespaK Lahore.(Const Of 8-Lane Overhead Bridge at Imamia Colony Railway Crossing,Shahdra)

Client Reference: 4537/02/MH/Lab/01

SOM Lab

Ref: 2509 (Page-2/2)

Dated: 16-06-2023

Dated: 26-06-2023

Test: Tension Test & Bend Test

Test Specification: ASTM-A-615

Deformed Bar (Kamran

Gauge Length: 8 inch

Sample Type: 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 | 2.651 | 8 | 0.996 | 0.79 | 0.779 | 22.73 | 33.71 | 63460 | 64360 | 94110 | 95440 | 1.40 | 8.00 | 17.5 | |
| 2 | 2.605 | 8 | 0.988 | 0.79 | 0.766 | 27.59 | 37.26 | 77040 | 79450 | 104010 | 107270 | 1.20 | 8.00 | 15.0 | |
| 3 | 0.672 | 4 | 0.501 | 0.20 | 0.197 | 6.27 | 8.66 | 69130 | 70190 | 95550 | 97000 | 1.10 | 8.00 | 13.8 | |
| 4 | 0.674 | 4 | 0.502 | 0.20 | 0.198 | 6.27 | 8.66 | 69130 | 69830 | 95550 | 96510 | 1.20 | 8.00 | 15.0 | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |

Witnessed By: Muhammad Bilal ,ME (NESPAK)

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