

Jamal Abdul Nasir

Test Performed By:

Dr. /Engr.

Asad Ali Gillani

Senior Resident Engineer, ACES -Site Office - Iqbal Gate, DHA, Multan

Client Reference: ACES/DHAM/DEV/SEC-V/356

Dated: 11-02-2021

SOM Lab Ref: CED/SOM/3846 (Page-1/1)

Dated: 12-02-2021

Test: Tension Test Bend Test

Test Specification: ASTM-A 615

Sample Type: Deformed Bar(Mughal 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 | 3.875 | 25 | 25.08 | 491 | 494 | 244.00 | 340.50 | 497 | 494 | 694 | 690 | 27.5 | 200 | 13.8 | |
| 2 | 3.881 | 25 | 25.09 | 491 | 494 | 239.50 | 334.70 | 488 | 485 | 682 | 677 | 32.5 | 200 | 16.3 | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |

BEND TEST:

| | | |
|------|--|---|
| 25mm | 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

Vision Engineering Services,
Near Kot Juspat Shahdara Town Lahore

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

Client Reference: Nil
SOM Lab Ref: CED/SOM/3245(Page-3/6)
Test: Tension Test
Sample Type: Steel Round Bar (Gol-H)

Dated: Nil
Dated: 12-11-2020
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 | 3.310 | 24 | 23.18 | 380 | 422 | 220.70 | 356.00 | 581 | 523 | 937 | 844 | 22.5 | 200 | 11.3 | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |

BEND TEST:

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

Ahmed Construction Company
Office # M-50, Golmine Plaza 105, Ferozpur Road Lahore,

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

Client Reference: Nil

SOM Lab 3842(Page-

Ref: 1/1)

Dated: 11-02-2021

Dated: 12-02-2021

Test: Tension 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 | 0.671 | 4 | 0.501 | 0.20 | 0.197 | 7.29 | 8.99 | 80370 | 81600 | 99150 | 100660 | 1.10 | 8.0 | 13.8 | |
| 2 | 0.671 | 4 | 0.501 | 0.20 | 0.197 | 7.51 | 9.19 | 82850 | 84110 | 101390 | 102940 | 1.00 | 8.0 | 12.5 | |
| 3 | 0.660 | 4 | 0.497 | 0.20 | 0.194 | 7.24 | 9.04 | 79810 | 82280 | 99710 | 102790 | 1.10 | 8.0 | 13.8 | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |

BEND TEST:

| | | |
|----|------------------------|---|
| -- | No Bend test performed | 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

Ali Abbas

Test Performed By:

Dr. /Engr.

S. Asad Ali Gillani

H. No. B - 13/730, Chah Beri Wala, Gujrat (Oner Ayaz Khan)

Client Reference: Nil

SOM Lab

(3904)3843(Page-

Ref:

1/1)

Dated: 12-02-2021

Dated:

12-02-2021

Test: Tension Test

Test Specification:

ASTM-A-615

Gauge Length: 8 inch

Sample Type:

Deformed Bar(Islamabad & 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 | 1.340 | 6 | 0.708 | 0.44 | 0.394 | 9.79 | 16.43 | 49050 | 54780 | 82370 | 91980 | 1.30 | 8.0 | 16.3 | Islamabad |
| 2 | 0.562 | 4 | 0.458 | 0.20 | 0.165 | 4.59 | 6.95 | 50590 | 61320 | 76660 | 92930 | 1.20 | 8.0 | 15.0 | Islamabad |
| 3 | 0.644 | 4 | 0.491 | 0.20 | 0.189 | 6.03 | 8.79 | 66550 | 70420 | 96900 | 102540 | 1.20 | 8.0 | 15.0 | Kamran |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |

BEND TEST:

| | |
|----|------------------------|
| -- | No Bend test performed |
| | |
| | |
| | |

Note:-

Only Three Samples Received and Tested

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

Shabbir Ali

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

Ittefaq Construction Associates, Project: Respected Naeem Iqbal Sb. (Plaza at Johar Town)

Client Reference: nil

SOM Lab 3844(Page-

Ref: 1/1)

Dated: 12-02-2021

Dated: 212-02-2021

Test: Tension 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 | 2.639 | 8 | 0.994 | 0.79 | 0.776 | 25.13 | 33.97 | 70150 | 71420 | 94820 | 96530 | 1.20 | 8.0 | 15.0 | |
| 2 | 2.640 | 8 | 0.994 | 0.79 | 0.776 | 25.71 | 34.42 | 71770 | 73070 | 96100 | 97840 | 1.30 | 8.0 | 16.3 | |
| 3 | 1.454 | 6 | 0.737 | 0.44 | 0.427 | 12.84 | 18.86 | 64380 | 66340 | 94530 | 97400 | 1.30 | 8.0 | 16.3 | |
| 4 | 1.454 | 6 | 0.737 | 0.44 | 0.427 | 12.90 | 18.91 | 64640 | 66610 | 94780 | 97670 | 1.30 | 8.0 | 16.3 | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |

BEND TEST:

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

Project Manager

Test Performed By:

Dr. /Engr.

S. Asad Ali Gillni

DCON Construction (Allied Bank Ltd., Plot No. 172 DD Block, Phase 4, CCA Commercial Area, DHA Lahore

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1/1)

Client Reference: nil

SOM Lab Ref:

Dated: 11-02-2021

Dated:

12-02-2021

Test: Tension Test

Test Specification:

ASTM-A-615

Guage 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 | 1.510 | 6 | 0.752 | 0.44 | 0.444 | 15.51 | 19.59 | 77770 | 77070 | 98210 | 97320 | 1.50 | 8.0 | 18.8 | |
| 2 | 1.061 | 5 | 0.630 | 0.31 | 0.312 | 11.69 | 13.73 | 83180 | 82650 | 97690 | 97060 | 1.10 | 8.0 | 13.8 | |
| 3 | 0.597 | 4 | 0.472 | 0.20 | 0.175 | 6.29 | 7.61 | 69360 | 79270 | 83970 | 95970 | 1.20 | 8.0 | 15.0 | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

BEND TEST:

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

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

Engr. Mustehson Ali Khan
 Flag Square Builder, Etihad Town Raiwind Road, Lahore

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

Client Reference: FBS/04/ST

SOM Lab 3847 (Page-

Ref: 1/2)

Dated: 12-02-2021

Dated: 12-02-2021

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 | 1.447 | 6 | 0.736 | 0.44 | 0.425 | 13.22 | 18.09 | 66270 | 68610 | 90690 | 93900 | 1.40 | 8.0 | 17.5 | |
| 2 | 1.405 | 6 | 0.725 | 0.44 | 0.413 | 13.48 | 18.14 | 67550 | 71970 | 90950 | 96900 | 1.30 | 8.0 | 16.3 | |
| 3 | 1.021 | 5 | 0.618 | 0.31 | 0.300 | 8.66 | 11.67 | 61650 | 63700 | 83040 | 85810 | 1.40 | 8.0 | 17.5 | |
| 4 | 1.025 | 5 | 0.619 | 0.31 | 0.301 | 8.58 | 11.69 | 61070 | 62890 | 83180 | 85670 | 1.40 | 8.0 | 17.5 | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

BEND TEST:

| | | |
|-----|--|---|
| # 6 | 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

Engr. Mustehson Ali Khan
 Flag Square Builder, Etihad Town Raiwind Road, Lahore

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

Client Reference: FBS/03/ST

SOM Lab 3847 (Page-

Ref: 2/2)

Dated: 12-02-2021

Dated: 12-02-2021

Test: Tension Test & Bend Test

Test Specification: ASTM-A-615

Gauge Length: 8 inch

Sample Type: Deformed Bar(AFCO 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 | 2.583 | 8 | 0.983 | 0.79 | 0.759 | 26.45 | 33.66 | 73850 | 76870 | 93970 | 97810 | 1.20 | 8.0 | 15.0 | |
| 2 | 2.542 | 8 | 0.975 | 0.79 | 0.747 | 30.84 | 36.14 | 86090 | 91040 | 100880 | 106690 | 1.00 | 8.0 | 12.5 | |
| 3 | 1.453 | 6 | 0.737 | 0.44 | 0.427 | 16.74 | 20.49 | 83900 | 86450 | 102700 | 105830 | 1.00 | 8.0 | 12.5 | |
| 4 | 1.461 | 6 | 0.739 | 0.44 | 0.429 | 15.82 | 19.83 | 79300 | 81330 | 99380 | 101930 | 1.10 | 8.0 | 13.8 | |
| 5 | 0.679 | 4 | 0.505 | 0.20 | 0.200 | 6.54 | 7.90 | 72170 | 72170 | 87120 | 87120 | 1.40 | 8.0 | 17.5 | |
| 6 | 0.677 | 4 | 0.503 | 0.20 | 0.199 | 6.34 | 8.04 | 69920 | 70270 | 88690 | 89140 | 1.20 | 8.0 | 15.0 | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |

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

Muhammad Salman
Project Manager, Al- Noor Developers, Lahore

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

Client Reference: nil

SOM Lab 3848(Page-

Ref: 1/1)

Dated: 28-01-2021

Dated: 12-02-2021

Test: Tension Test & Bend Test

Test Specification:

ASTM-A-615

Guage Length: 8 inch

Sample Type:

Deformed Bar(AFCO 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 | 2.587 | 8 | 0.984 | 0.79 | 0.760 | 32.36 | 37.26 | 90360 | 93920 | 104010 | 108120 | 0.70 | 8.0 | 8.8 | |
| 2 | 1.453 | 6 | 0.737 | 0.44 | 0.427 | 16.38 | 19.95 | 82110 | 84610 | 99990 | 103040 | 0.90 | 8.0 | 11.3 | |
| 3 | 1.039 | 5 | 0.623 | 0.31 | 0.305 | 8.61 | 11.72 | 61280 | 62290 | 83400 | 84770 | 1.50 | 8.0 | 18.8 | + |
| 4 | 0.680 | 4 | 0.505 | 0.20 | 0.200 | 6.27 | 8.00 | 69130 | 69130 | 88240 | 88240 | 1.40 | 8.0 | 17.5 | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |

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