**Engr Jaffar Rashid**
**Project Manager, IZHAR Concrete (Pvt) Ltd. Lahore**

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

**Client Reference:** **ICPL/CCBPL/LAB/07**
**Dated:** **26-09-2018**

**SOM Lab Ref:** **1469(Page-1/1)**
**Dated:** **26-12-2018**

**Test:** **Tension Test & Bend Test**
**Test Specification:** **BS -4449 Deformed Bar**

**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 | 1.487 | 6 | 0.746 | 0.44 | 0.437 | 18.15 | 21.63 | 91000 | 91630 | 108420 | 109170 | 1.00 | 8.0 | 12.5 | |
| 2 | 1.481 | 6 | 0.744 | 0.44 | 0.435 | 18.14 | 21.68 | 90950 | 92000 | 108680 | 109930 | 1.00 | 8.0 | 12.5 | |
| 3 | 1.012 | 5 | 0.615 | 0.31 | 0.297 | 9.86 | 12.35 | 70130 | 73200 | 87900 | 91750 | 1.00 | 8.0 | 12.5 | |
| 4 | 1.002 | 5 | 0.612 | 0.31 | 0.294 | 10.37 | 12.86 | 73760 | 77770 | 91520 | 96500 | 1.10 | 8.0 | 13.8 | |
| 5 | 0.650 | 4 | 0.493 | 0.20 | 0.191 | 6.09 | 9.28 | 67110 | 70270 | 102290 | 107110 | 1.10 | 8.0 | 13.8 | |
| 6 | 0.658 | 4 | 0.496 | 0.20 | 0.193 | 6.19 | 9.33 | 68230 | 70710 | 102860 | 106590 | 1.20 | 8.0 | 15.0 | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |

**BEND TEST:**

| | |
|---|---|
| # 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:-**

**Only Nine Samples Received and Tested**

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

**H. Developments Construction,** **Test Performed By:** **Dr. /Engr.** **S. Asad Ali Gillani**

**4-Babar Block, Main Boulevard, Garden Town, Lahore**

**Client Reference:** **Nil** **SOM Lab Ref:** **1471(Page-1/1)**

**Dated:** **26-09-2019** **Dated:** **26-09-2019**

**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 | 2.612 | 8 | 0.989 | 0.79 | 0.768 | 26.86 | 35.47 | 74990 | 77140 | 99030 | 101870 | 1.30 | 8.0 | 16.3 | |
| 2 | 2.602 | 8 | 0.987 | 0.79 | 0.765 | 23.82 | 32.79 | 66510 | 68680 | 91550 | 94540 | 1.20 | 8.0 | 15.0 | |
| 3 | 1.485 | 6 | 0.745 | 0.44 | 0.436 | 14.32 | 18.60 | 71790 | 72450 | 93250 | 94110 | 1.30 | 8.0 | 16.3 | |
| 4 | 1.483 | 6 | 0.745 | 0.44 | 0.436 | 14.37 | 18.73 | 72050 | 72710 | 93860 | 94720 | 1.30 | 8.0 | 16.3 | |
| 5 | 0.642 | 4 | 0.491 | 0.20 | 0.189 | 6.57 | 8.43 | 72510 | 76730 | 92960 | 98370 | 0.90 | 8.0 | 11.3 | |
| 6 | 0.660 | 4 | 0.497 | 0.20 | 0.194 | 7.03 | 8.66 | 77560 | 79960 | 95550 | 98500 | 0.90 | 8.0 | 11.3 | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |

**BEND TEST:**

| | |
|---|---|
| # 8 | Sample bend through 180 degrees Satisfactorily without any crack |
| # 6 | Sample bend through 180 degrees Satisfactorily without any crack |
| # 4 | Sample bend through 180 degrees Satisfactorily without any crack |
| | |
| | |

**Note:-**

**Only Nine Samples Received and Tested**

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

**Khalid Latif Sheikh**
**PMCS Manager, MAK Associates, Lahore**

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

**Client Reference:** **MAK/PAF/SV-GL/TB-037**
**Dated:** **24-09-2019**

**SOM Lab Ref:** **1472(Page-1/1)**
**Dated:** **26-09-2019**

**Test:** **Tension Test & Bend 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 | 2.660 | 8 | 0.998 | 0.79 | 0.782 | 28.72 | 36.72 | 80170 | 80990 | 102510 | 103560 | 1.20 | 8.0 | 15.0 | |
| 2 | 2.664 | 8 | 0.998 | 0.79 | 0.783 | 28.82 | 36.51 | 80450 | 81170 | 101940 | 102850 | 1.10 | 8.0 | 13.8 | |
| 3 | 1.505 | 6 | 0.750 | 0.44 | 0.442 | 14.78 | 20.56 | 74090 | 73750 | 103060 | 102590 | 1.20 | 8.0 | 15.0 | |
| 4 | 1.489 | 6 | 0.747 | 0.44 | 0.438 | 14.48 | 19.57 | 72560 | 72890 | 98100 | 98550 | 1.00 | 8.0 | 12.5 | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |

**BEND TEST:**

| | |
|---|---|
| # 8 | Sample bend through 180 degrees Satisfactorily without any crack |
| # 6 | 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**

**Sub Divisional Officer**
**Highway Sub Division, Arifwala**

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

**Client Reference:** 387/SDO-A
**Dated:** 31-08-2019

**SOM Lab Ref:** 1473 (Page-1/1)
**Dated:** 26-09-2019

**Test:** Tension Test
**Gauge Length:** 8 inch

**Test Specification:** ASTM-A-615
**Sample Type:** Plain & 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 | 2.515 | 8 | 0.970 | 0.79 | 0.739 | 18.86 | 27.37 | 52650 | 56280 | 76410 | 81680 | 2.30 | 8.0 | 28.8 | Plain Bar |
| 2 | 1.284 | 6 | 0.693 | 0.44 | 0.377 | 9.33 | 15.31 | 46760 | 54570 | 76750 | 89570 | 1.10 | 8.0 | 13.8 | Deformed |
| 3 | 0.533 | 4 | 0.447 | 0.20 | 0.157 | 4.20 | 6.54 | 46320 | 59000 | 72170 | 91930 | 1.00 | 8.0 | 12.5 | Deformed |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |

**BEND TEST:**

| | |
|---|---|
| # 8 | Sample bend through 180 degrees Satisfactorily without any crack |
| # 6 | 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**

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

**Project Manager, Maypole Lime Light Pvt. Ltd** **Project: Maypole Lime Light(Front Building)**

**Client Reference:** **MLL-11** **SOM Lab Ref:** **1476(Page-1/1)**

**Dated:** **27-09-2019** **Dated:** **27-09-2019**

**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 | 2.621 | 8 | 0.990 | 0.79 | 0.770 | 24.31 | 32.31 | 67870 | 69640 | 90210 | 92560 | 1.30 | 8.0 | 16.3 | |
| 2 | 2.621 | 8 | 0.990 | 0.79 | 0.770 | 23.85 | 31.62 | 66590 | 68320 | 88280 | 90570 | 1.20 | 8.0 | 15.0 | |
| 3 | 0.661 | 4 | 0.497 | 0.20 | 0.194 | 5.56 | 8.48 | 61270 | 63160 | 93530 | 96420 | 1.30 | 8.0 | 16.3 | |
| 4 | 0.664 | 4 | 0.498 | 0.20 | 0.195 | 5.63 | 8.48 | 62050 | 63640 | 93530 | 95920 | 1.20 | 8.0 | 15.0 | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |

**BEND TEST:**

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

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

**AEN/Civil/RSP, Pakistan Railways, HQs Offoce Lahore (LON-SDR) Section**

**Client Reference:** **Sig-Proj/Lon-SDR/201-H/RSP** **SOM Lab Ref:** **1479 (Page-1/1)**

**Dated:** **24-09-2019** **Dated:** **27-09-2019**

**Test:** **Tension 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 | 1.491 | 6 | 0.747 | 0.44 | 0.438 | 17.23 | 20.59 | 86350 | 86750 | 103210 | 103680 | 1.00 | 8.0 | 12.5 | |
| 2 | 1.510 | 6 | 0.752 | 0.44 | 0.444 | 17.74 | 20.77 | 88910 | 88110 | 104130 | 103190 | 0.90 | 8.0 | 11.3 | |
| 3 | 1.491 | 6 | 0.747 | 0.44 | 0.438 | 14.22 | 18.40 | 71280 | 71610 | 92230 | 92650 | 1.10 | 8.0 | 13.8 | |
| 4 | 0.686 | 4 | 0.507 | 0.20 | 0.202 | 6.39 | 9.89 | 70480 | 69780 | 109040 | 107960 | 1.00 | 8.0 | 12.5 | |
| 5 | 0.685 | 4 | 0.506 | 0.20 | 0.201 | 6.39 | 9.89 | 70480 | 70130 | 109040 | 108490 | 1.10 | 8.0 | 13.8 | |
| 6 | 0.685 | 4 | 0.506 | 0.20 | 0.201 | 6.44 | 9.91 | 71040 | 70690 | 109260 | 108720 | 1.10 | 8.0 | 13.8 | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |

**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**

**Deputy Chief Works**
**Punjab Safe Cites Authority, Lahore**

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

**Client Reference:** **10492/Civil/PSCA/2019**
**Dated:** **07-08-2019**

**SOM Lab Ref:** **1481 (Page-1/1)**
**Dated:** **27-09-2019**

**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 | 1.476 | 6 | 0.743 | 0.44 | 0.434 | 13.91 | 19.24 | 69750 | 70710 | 96420 | 97750 | 1.20 | 8.0 | 15.0 | |
| 2 | 1.466 | 6 | 0.741 | 0.44 | 0.431 | 13.83 | 19.13 | 69340 | 70790 | 95910 | 97910 | 1.20 | 8.0 | 15.0 | |
| 3 | 0.592 | 4 | 0.471 | 0.20 | 0.174 | 6.93 | 8.38 | 76440 | 87860 | 92400 | 106210 | 1.20 | 8.0 | 15.0 | |
| 4 | 0.594 | 4 | 0.472 | 0.20 | 0.175 | 6.90 | 8.46 | 76100 | 86970 | 93300 | 106630 | 1.10 | 8.0 | 13.8 | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |

**BEND TEST:**

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

**W-Mall**

**MM Alam Road, Gulberg - III, Lahore**

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

**Client Reference:** **nil**

**Dated:** **27-09-2019**

**SOM Lab Ref:** **1482(Page-1/1)**

**Dated:** **27-09-2019**

**Test:** **Tension 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 | 2.633 | 8 | 0.993 | 0.79 | 0.774 | 26.91 | 34.86 | 75130 | 76680 | 97330 | 99340 | 1.20 | 8.0 | 15.0 | |
| 2 | 1.536 | 6 | 0.758 | 0.44 | 0.451 | 17.23 | 20.69 | 86350 | 84250 | 103720 | 101190 | 1.00 | 8.0 | 12.5 | |
| 3 | 0.665 | 4 | 0.498 | 0.20 | 0.195 | 5.81 | 9.04 | 64080 | 65720 | 99710 | 102260 | 1.10 | 8.0 | 13.8 | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |

**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**

**Nisar A. Gondal** **Test Performed By:** **Dr. /Engr.** **S. Asad Ali Gillani**

**M. R. Electric Concern (Pvt) Ltd. Lahore**

**Client Reference:** **MREC/HVDCLHR-12-2018/8** **SOM Lab Ref:** **1483 (Page-1/1)**

**Dated:** **27-09-2019** **Dated:** **27-09-2019**

**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 | 3.333 | 9 | 1.116 | 1.00 | 0.979 | 30.89 | 43.24 | 68120 | 69580 | 95370 | 97410 | 1.10 | 8.0 | 13.8 | |
| 2 | 3.309 | 9 | 1.112 | 1.00 | 0.972 | 32.01 | 43.68 | 70600 | 72630 | 96340 | 99110 | 1.10 | 8.0 | 13.8 | |
| 3 | 2.623 | 8 | 0.991 | 0.79 | 0.771 | 24.52 | 34.35 | 68440 | 70130 | 95900 | 98270 | 1.30 | 8.0 | 16.3 | |
| 4 | 2.577 | 8 | 0.982 | 0.79 | 0.757 | 24.21 | 34.05 | 67590 | 70540 | 95050 | 99190 | 1.30 | 8.0 | 16.3 | |
| 5 | 1.463 | 6 | 0.740 | 0.44 | 0.430 | 13.73 | 18.50 | 68830 | 70430 | 92740 | 94900 | 1.20 | 8.0 | 15.0 | |
| 6 | 1.450 | 6 | 0.736 | 0.44 | 0.426 | 13.46 | 18.14 | 67450 | 69660 | 90950 | 93940 | 1.30 | 8.0 | 16.3 | |
| 7 | 0.662 | 4 | 0.498 | 0.20 | 0.195 | 5.93 | 8.26 | 65420 | 67100 | 91050 | 93390 | 1.30 | 8.0 | 16.3 | |
| 8 | 0.664 | 4 | 0.498 | 0.20 | 0.195 | 5.91 | 8.33 | 65200 | 66870 | 91840 | 94190 | 1.40 | 8.0 | 17.5 | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |

**BEND TEST:**

| | |
|---|---|
| # 9 | Sample bend through 180 degrees Satisfactorily without any crack |
| # 8 | Sample bend through 180 degrees Satisfactorily without any crack |
| # 6 | Sample bend through 180 degrees Satisfactorily without any crack |
| # 4 | Sample bend through 180 degrees Satisfactorily without any crack |
| | |

**Note:-**

**Only Twelve Samples Received and Tested**

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

**Maj Adnan khalid®** **Test Performed By:** Dr. /Engr. M Irfan Ul Hassan

**Dy Dir MTL, External Elec Works (U/G) IVY Green Sector-Z, - DHA , Ph-VIII - (M/S NLC)**

**Client Reference:** 408/241/E/Lab/720/1689 **SOM Lab Ref:** 1484(Page-1/1)

**Dated:** 27-09-2019 **Dated:** 27-09-2019

**Test:** Tension Test & Bend Test **Test Specification:** ASTM-A-615 Deformed Bar ( FF 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 | 1.473 | 6 | 0.743 | 0.44 | 0.433 | 15.46 | 20.85 | 77510 | 78770 | 104490 | 106180 | 0.90 | 8.0 | 11.3 | |
| 2 | 1.478 | 6 | 0.743 | 0.44 | 0.434 | 15.49 | 20.92 | 77670 | 78740 | 104850 | 106300 | 1.00 | 8.0 | 12.5 | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |

**BEND TEST:**

| | |
|---|---|
| # 6 | Sample bend through 180 degrees Satisfactorily without any crack |
| | |
| | |
| | |
| | |

**Note:-**

**Only Three Samples Received and Tested**

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