**Client Reference No.**: MMP/PCP/MCO/178/2024 **Dated:** 27-03-2024

**SOM Lab Ref**: CED/SOM/3913 **Dated:** 06-03-2024

**Test Type:** Load Test of RPC Manhole Cover (M/S Muhammad Sajjad Pvt.Ltd)

**Test Standard:** Non-standard test was performed as per requirement of the client [Application of load at the center of the Manhole Cover through circular thick steel plate of 380mm diameter]

**Test Performed by**: Dr. Asad Ali Gillani

---

ARE MMP/Pack-V

Punjab Cities Program (MMP)

(RPC Man Hole Covers Laying of Tuff Pavers/Tiles in Various Important Areas of Okara City)

This is with reference to your above-mentioned letter and SOM receipt No. 3913 dated: 01-04-2024. The sample of RPC Manhole Cover submitted in the Laboratory has been tested and the result is provided below.

## Load Test Result

| Weight of Manhole Cover With Ring | Diameter of Manhole Cover | Average Thickness of Manhole Cover | Maximum Load | Observations/Remarks |
|---|---|---|---|---|
| 48.0 Kg | 644 mm | 63.13mm | 9500 kg | The sample was cracked at this load |

Witnessed by: M.Ismail (ARE/MMP), Zia-Mohiuddin (Senior Draftsman)

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

Lab In Charge CMEC Haveli Bahadur Shah.(Const Of 1263MW Punjab Thermal Poer Plant,Jhang)

**Client Reference:** CMEC/UET/24031301 **Dated:** 01-04-2024

**SOM Lab Ref:** CED/SOM/3904(Page-1/1) **Dated:** 01-04-2024

**Test:** Tension Test & Bend Test **Test Specification:** ASTM-A 615

**Sample Type:** Deformed Bar (Ittehad 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 | 4.985 | 28 | 28.43 | 616 | 635 | 280.00 | 396.70 | 455 | 441 | 644 | 625 | 30.0 | 200 | 15.0 | |
| 2 | 4.978 | 28 | 28.42 | 616 | 634 | 274.00 | 392.20 | 445 | 433 | 637 | 619 | 32.5 | 200 | 16.3 | |
| 3 | 3.915 | 25 | 25.20 | 491 | 499 | 302.00 | 358.50 | 615 | 606 | 730 | 719 | 25.0 | 200 | 12.5 | |
| 4 | 3.965 | 25 | 25.36 | 491 | 505 | 308.00 | 366.70 | 627 | 610 | 747 | 727 | 32.5 | 200 | 16.3 | |
| 5 | 2.207 | 20 | 18.92 | 314 | 281 | 146.20 | 183.20 | 465 | 520 | 583 | 652 | 27.5 | 200 | 13.8 | |
| 6 | 2.213 | 20 | 18.95 | 314 | 282 | 147.00 | 182.70 | 468 | 522 | 582 | 648 | 32.5 | 200 | 16.3 | |
| 7 | 1.568 | 16 | 15.95 | 201 | 200 | 103.70 | 131.20 | 516 | 520 | 653 | 657 | 32.5 | 200 | 16.3 | |
| 8 | 1.547 | 16 | 15.84 | 201 | 197 | 101.20 | 129.50 | 503 | 514 | 644 | 658 | 30.0 | 200 | 15.0 | |
| 9 | 0.882 | 12 | 11.96 | 113 | 112 | 52.50 | 74.50 | 464 | 468 | 659 | 663 | 32.5 | 200 | 16.3 | |
| 10 | 0.885 | 12 | 11.98 | 113 | 113 | 52.70 | 75.00 | 466 | 468 | 663 | 666 | 35.0 | 200 | 17.5 | |

**Witnessed By:** M.Iqbal (CMEC)

**BEND TEST:**

| | |
|---|---|
| 28mm | Sample bend through 180 degrees Satisfactorily without any crack |
| 25mm | Sample bend through 180 degrees Satisfactorily without any crack |
| 20mm | Sample bend through 180 degrees Satisfactorily without any crack |
| 16mm | Sample bend through 180 degrees Satisfactorily without any crack |
| 12mm | Sample bend through 180 degrees Satisfactorily without any crack |

**Note:-**

Only Fifteen Samples Received and Tested

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

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

Director Projects Sheikhoo Sugar Mills,Anwar Abad Kot Addu,Muzaffargarh.

**Client Reference:** Nil **Dated:** 25-03-2024

**SOM Lab Ref:** CED/SOM/3906(Page-1/1) **Dated:** 01-04-2024

**Test:** Tension Test & Bend Test **Test Specification:** ASTM-A 615

**Sample Type:** Deformed Bar (Sheikhoo 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 | 4.845 | 28 | 28.03 | 616 | 617 | 300.00 | 406.20 | 487 | 487 | 660 | 659 | 32.5 | 200 | 16.3 | |
| 2 | 3.809 | 25 | 24.86 | 491 | 485 | 228.70 | 325.70 | 466 | 472 | 664 | 672 | 40.0 | 200 | 20.0 | |
| 3 | 2.965 | 22 | 21.93 | 380 | 378 | 180.00 | 251.20 | 474 | 477 | 661 | 666 | 35.0 | 200 | 17.5 | |
| 4 | 2.441 | 20 | 19.90 | 314 | 311 | 158.50 | 208.50 | 505 | 510 | 664 | 671 | 32.5 | 200 | 16.3 | |
| 5 | 1.551 | 16 | 15.86 | 201 | 198 | 92.70 | 133.00 | 461 | 470 | 661 | 674 | 32.5 | 200 | 16.3 | |
| 6 | 0.882 | 12 | 11.96 | 113 | 112 | 55.20 | 74.70 | 488 | 492 | 660 | 665 | 37.5 | 200 | 18.8 | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |

**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

Waqas Ali
Variant Gulberg 2, Lahore.

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

**Client Reference:** VA/29/136
**Dated:** 29-03-2024

**SOM Lab Ref:** 3905 (Page-1/1)
**Dated:** 01-04-2024

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

**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 | 1.483 | 6 | 0.745 | 0.44 | 0.436 | 13.32 | 20.20 | 66780 | 67400 | 101270 | 102200 | 1.30 | 8.0 | 16.3 | |
| 2 | 1.483 | 6 | 0.745 | 0.44 | 0.436 | 13.35 | 20.29 | 66940 | 67550 | 101680 | 102610 | 1.40 | 8.0 | 17.5 | |
| 3 | 0.660 | 4 | 0.497 | 0.20 | 0.194 | 5.83 | 9.14 | 64300 | 66290 | 100830 | 103950 | 1.00 | 8.0 | 12.5 | |
| 4 | 0.663 | 4 | 0.498 | 0.20 | 0.195 | 5.93 | 9.17 | 65420 | 67100 | 101170 | 103760 | 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

Engineer Muhammad Irfan
Dy Dir Infra. DHA Gujranwala.(Sector C)

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

**Client Reference:** 111/15/DD/RS/Lab/Pkg-2A/3011
**Dated:** 28-03-2024

**SOM Lab Ref:** 3907 (Page-1/1)
**Dated:** 01-04-2024

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

**Test Specification:** ASTM-A-615
**Sample Type:** Deformed Bar (FF 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 | 0.707 | 4 | 0.515 | 0.20 | 0.208 | 7.14 | 9.58 | 78690 | 75660 | 105670 | 101600 | 1.20 | 8.0 | 15.0 | |
| 2 | 0.699 | 4 | 0.511 | 0.20 | 0.205 | 6.88 | 9.40 | 75880 | 74030 | 103640 | 101110 | 1.10 | 8.0 | 13.8 | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |

**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

Muhammad Zubair,Site Admin **Test Performed By:** **Dr. /Engr.** Asad Ali Gillani

Innovative ® Construction Company Lahore.(Project: Shoring Works at Kingdom area,RUDA Lahore)

**Client Reference:** ICL/KA/PW/042/01 **SOM Lab Ref:** 3908(Page-1/1)

**Dated:** 01-04-2024 **Dated:** 01-04-2024

**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 | 2.674 | 8 | 1.000 | 0.79 | 0.786 | 26.22 | 34.98 | 73200 | 73570 | 97670 | 98170 | 1.50 | 8.0 | 18.8 | |
| 2 | 2.662 | 8 | 0.998 | 0.79 | 0.782 | 26.10 | 35.22 | 72850 | 73600 | 98320 | 99330 | 1.40 | 8.0 | 17.5 | |
| 3 | 1.015 | 5 | 0.616 | 0.31 | 0.298 | 9.45 | 12.90 | 67230 | 69940 | 91740 | 95440 | 1.20 | 8.0 | 15.0 | |
| 4 | 1.038 | 5 | 0.623 | 0.31 | 0.305 | 10.42 | 13.78 | 74120 | 75330 | 98050 | 99660 | 1.30 | 8.0 | 16.3 | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |

**BEND TEST:**

| | |
|---|---|
| # 8 | Sample bend through 180 degrees Satisfactorily without any crack |
| # 5 | 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

Hussain Construction Company
Lahore.(Allied Health School CMH Lahore)

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

**Client Reference:** Nil
**Dated:** 01-04-2024

**SOM Lab Ref:** 3909(Page-1/1)
**Dated:** 01-04-2024

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

**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 | 2.647 | 8 | 0.995 | 0.79 | 0.778 | 25.99 | 33.51 | 72570 | 73690 | 93540 | 94990 | 1.60 | 8.0 | 20.0 | |
| 2 | 1.515 | 6 | 0.753 | 0.44 | 0.445 | 14.70 | 18.93 | 73680 | 72850 | 94880 | 93820 | 1.30 | 8.0 | 16.3 | |
| 3 | 0.659 | 4 | 0.497 | 0.20 | 0.194 | 6.98 | 8.69 | 77000 | 79380 | 95770 | 98740 | 1.20 | 8.0 | 15.0 | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |

**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

Muhammad Shabbir Sandhu,ME **Test Performed By:** **Dr. /Engr.** Asad Ali Gillani

NESPAK,EPCM Consult Swl.(Trunk Main Sewer Effluent P/Station & A/Works,Lot-04& Road Project)

**Client Reference:** 3976/11/MIA/SWL/Lot-04/01/940 **SOM Lab Ref:** 3910 (Page-1/1)

**Dated:** 08-03-2024 **Dated:** 01-04-2024

**Test:** Tension Test & Bend Test **Test Specification:** ASTM-A-615

**Gauge Length:** 8 inch **Sample Type:** Deformed Bar (Aziz 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 | 0.673 | 4 | 0.502 | 0.20 | 0.198 | 6.19 | 9.48 | 68230 | 68920 | 104540 | 105600 | 1.10 | 8.0 | 13.8 | |
| 2 | 0.672 | 4 | 0.501 | 0.20 | 0.197 | 6.32 | 9.53 | 69700 | 70760 | 105100 | 106700 | 1.20 | 8.0 | 15.0 | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |

**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

Muhammad Shabbir Sandhu,ME **Test Performed By:** **Dr. /Engr.** Asad Ali Gillani

NESPAK,EPCM Consult Swl.(Trunk Main Sewer Effluent P/Station & A/Works,Lot-04& Road Project)

**Client Reference:** 3976/11/MS/SWL/Lot-04/01/1069 **SOM Lab Ref:** 3911 (Page-1/1)

**Dated:** 01-04-2024 **Dated:** 01-04-2024

**Test:** Tension Test & Bend Test **Test Specification:** ASTM-A-615

**Gauge Length:** 8 inch **Sample Type:** Deformed Bar (AF 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 | 0.652 | 4 | 0.494 | 0.20 | 0.192 | 6.93 | 8.31 | 76440 | 79620 | 91610 | 95430 | 1.20 | 8.0 | 15.0 | |
| 2 | 0.649 | 4 | 0.493 | 0.20 | 0.191 | 7.56 | 8.89 | 83410 | 87340 | 98020 | 102640 | 1.10 | 8.0 | 13.8 | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |

**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

Luqman Maqsood,RE **Test Performed By:** **Dr. /Engr.** Asad Ali Gillani

Shahzad Ayub Associates New Metro City Sri Alamgir.(Ghousia Engineering)

**SOM Lab**

**Client Reference:** SAA-St-Rep-018 **Ref:** 3912(Page-1/1)

**Dated:** 30-03-2024 **Dated:** 01-04-2024

**Test:** Tension Test & Bend Test **Test Specification:** ASTM-A-615

**Gauge Length:** 8 inch **Sample Type:** Deformed Bar (SJ 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 | 2.628 | 8 | 0.991 | 0.79 | 0.772 | 25.43 | 34.40 | 71000 | 72660 | 96050 | 98290 | 1.50 | 8.0 | 18.8 | |
| 2 | 2.640 | 8 | 0.994 | 0.79 | 0.776 | 25.40 | 34.48 | 70920 | 72200 | 96250 | 97980 | 1.60 | 8.0 | 20.0 | |
| 3 | 1.448 | 6 | 0.736 | 0.44 | 0.426 | 13.48 | 21.33 | 67550 | 69770 | 106890 | 110400 | 1.30 | 8.0 | 16.3 | |
| 4 | 1.446 | 6 | 0.736 | 0.44 | 0.425 | 13.73 | 21.63 | 68830 | 71260 | 108420 | 112250 | 1.40 | 8.0 | 17.5 | |
| 5 | 0.672 | 4 | 0.501 | 0.20 | 0.197 | 6.63 | 8.48 | 73070 | 74180 | 93530 | 94950 | 1.20 | 8.0 | 15.0 | |
| 6 | 0.673 | 4 | 0.502 | 0.20 | 0.198 | 6.57 | 8.46 | 72510 | 73240 | 93300 | 94240 | 1.10 | 8.0 | 13.8 | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |

**Witnessed By:** M-Nadeem (Senior Material Engineer,BSM)

**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