Engr. Obaid - ur-rehman Ansari **Test Performed By:** **Dr. /Engr. M Yousaf**

Resident Engineer, Cardiology Multan Residency, Multan

Client Reference: **RE/AZEA/Multan/425** **SOM Lab Ref:** **229(Page-1/1)**

Dated: **31-01-2019** **Dated:** **01-02-2019**

Test: **Tension Test & Bend Test** **Test Specification:** **ASTM-A-615 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	2.670	8	1.000	0.79	0.785	23.24	37.13	64890	65300	103640	104300	1.20	8.0	15.0	
2	2.679	8	1.001	0.79	0.787	23.55	37.64	65740	65990	105070	105470	1.40	8.0	17.5	
3	2.678	8	1.001	0.79	0.787	23.24	37.21	64890	65130	103870	104270	1.20	8.0	15.0	
4	0.618	4	0.481	0.20	0.182	5.27	8.38	58120	63870	92400	101540	1.10	8.0	13.8	
5	0.634	4	0.487	0.20	0.186	5.45	8.53	60140	64670	94090	101170	1.00	8.0	12.5	
6	0.640	4	0.489	0.20	0.188	5.50	8.61	60700	64580	94990	101050	1.00	8.0	12.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

BEND TEST:

# 8	Sample bend through 180 degrees Satisfactorily without any crack
# 8	Sample bend through 180 degrees Satisfactorily without any crack
# 8	Sample bend through 180 degrees Satisfactorily without any crack
# 4	Sample bend through 180 degrees Satisfactorily without any crack
# 4(Sr.5,6)	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

Sub Divisional Officer **Test Performed By:** Dr. /Engr. M Yousaf

Public Health Engg: S/Divn Depalpur

Client Reference: 382- **SOM Lab Ref:** 231(Page-1/4)

Dated: 29-01-2019 **Dated:** 01-02-2019

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	1.455	6	0.738	0.44	0.428	17.56	21.02	88040	90510	105360	108310	1.00	8.0	12.5	
2	0.707	4	0.515	0.20	0.208	7.24	9.02	79810	76740	99480	95660	1.00	8.0	12.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

BEND TEST:

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

Note:-

Only Four Samples Received and Tested

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

Sub Divisional Officer **Test Performed By:** Dr. /Engr. M Yousaf

Public Health Engg: S/Divn Depalpur

Client Reference: 383- **SOM Lab Ref:** 231(Page-2/4)

Dated: 29-01-2019 **Dated:** 01-02-2019

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	1.464	6	0.740	0.44	0.430	17.79	21.20	89160	91240	106280	108750	1.30	8.0	16.3	
2	0.699	4	0.511	0.20	0.205	6.60	8.41	72730	70960	92740	90480	1.00	8.0	12.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

BEND TEST:

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

Note:-

Only Four Samples Received and Tested

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

Sub Divisional Officer **Test Performed By:** **Dr. /Engr. M Yousaf**

Public Health Engg: S/Divn Depalpur

Client Reference: 384- **SOM Lab Ref: 231(Page-3/4)**

Dated: 29-01-2019 **Dated: 01-02-2019**

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	1.465	6	0.741	0.44	0.431	17.69	21.00	88650	90500	105260	107450	1.00	8.0	12.5	
2	0.670	4	0.501	0.20	0.197	6.24	8.07	68800	69840	89030	90390	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 Four Samples Received and Tested

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

Sub Divisional Officer **Test Performed By:** Dr. /Engr. M Yousaf

Public Health Engg: S/Divn Depalpur

Client Reference: 385- **SOM Lab Ref:** 231(Page-4/4)

Dated: 29-01-2019 **Dated:** 01-02-2019

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	1.465	6	0.741	0.44	0.431	17.74	21.00	88910	90760	105260	107450	1.10	8.0	13.8	
2	0.737	4	0.526	0.20	0.217	8.66	10.35	95550	88060	114100	105160	0.80	8.0	10.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

BEND TEST:

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

Note:-

Only Four Samples Received and Tested

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

Batala Steel
Lahore

Test Performed By: Dr. /Engr. **M Rizwan Riaz**

Client Reference: nil
Dated: 01-02-2019

SOM Lab Ref: 232(Page-1/1)
Dated: 01-02-2019

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	2.699	8	1.005	0.79	0.793	25.23	37.07	70440	70170	103500	103110	1.20	8.0	15.0	
2	1.527	6	0.756	0.44	0.449	14.78	21.02	74090	72600	105360	103250	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

Note:-

Only Four 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 Yousaf**

Dy Dir MTL, Renovation of Library Sector - Z DHA PH-III, - (M/S Allied Engineers)

Client Reference: **408/241/E/Lab/439/163** **SOM Lab Ref:** **234(Page-1/1)**

Dated: **01-02-2019** **Dated:** **01-02-2019**

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	2.579	8	0.982	0.79	0.758	21.20	35.37	59200	61690	98750	102920	1.70	8.0	21.3	
2	2.572	8	0.981	0.79	0.756	22.12	35.12	61760	64530	98040	102450	1.40	8.0	17.5	
3	1.522	6	0.754	0.44	0.447	14.07	21.12	70510	69410	105870	104210	1.40	8.0	17.5	
4	1.514	6	0.753	0.44	0.445	12.95	20.90	64890	64160	104750	103570	1.30	8.0	16.3	
5	0.657	4	0.496	0.20	0.193	5.71	8.48	62950	65230	93530	96920	1.50	8.0	18.8	
6	0.652	4	0.494	0.20	0.192	5.63	8.46	62050	64640	93300	97190	1.40	8.0	17.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

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

Abdullah Khadim **Test Performed By:** Dr. /Engr. **M Yousaf**

Resident Engineer, DAR Engineering

Client Reference: **DB-78/DAR/RE/ME/2019/0179** **SOM Lab Ref:** **235(Page-1/2)**

Dated: **01-02-2019** **Dated:** **01-02-2019**

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	1.465	6	0.741	0.44	0.431	12.95	19.16	64890	66250	96060	98070	1.40	8.0	17.5	P-959
2	1.471	6	0.742	0.44	0.432	12.92	18.93	64740	65940	94880	96640	1.30	8.0	16.3	P-959
3	1.459	6	0.739	0.44	0.429	12.74	18.78	63870	65510	94120	96530	1.20	8.0	15.0	P-970
4	1.421	6	0.730	0.44	0.418	13.05	19.13	65400	68850	95910	100950	1.20	8.0	15.0	P-970
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

BEND TEST:

# 6	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

Abdullah Khadim
Resident Engineer, DAR Engineering

Test Performed By: Dr. /Engr. **M Yousaf**

Client Reference: **DB-78/DAR/RE/ME/2019/0177**
Dated: 29-01-2019

SOM Lab Ref: 235(Page-2/2)
Dated: 01-02-2019

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	2.639	8	0.994	0.79	0.776	24.82	35.14	69300	70550	98100	99870	1.50	8.0	18.8	180
2	2.610	8	0.988	0.79	0.767	27.01	36.72	75420	77680	102510	105580	1.40	8.0	17.5	180
3	2.616	8	0.990	0.79	0.769	25.89	36.21	72290	74260	101080	103840	1.50	8.0	18.8	184
4	2.603	8	0.987	0.79	0.765	26.30	36.80	73420	75820	102730	106090	1.30	8.0	16.3	184
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

BEND TEST:

# 8	Sample bend through 180 degrees Satisfactorily without any crack
# 8	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

Test Performed by: Engr. Ubaid A Mughal

Resident Engineer
EA Consulting (Pvt) Ltd.
Sukkur ~ Multan Motorway Project Section – III

Client Reference No.: CRE/EA/M.P-III/318-2019 **Dated: 31-01-2019**

SOM Lab Ref: CED/SOM/230(P-1/2) **Dated: 01-02-2019**

Test Type: Tensile Test

Sample Type: Bolts,

Tensile Test Results

Sample No.	Sample Type	Tested Diameter of Bolt (mm)	Ultimate Tensile Stress (MPa)	Elongation (%)
1	Bolt (22/85)	14.0	1239	20.0
2	Bolt (22/85)	14.0	1200	15.0
3	Bolt (20/65)	14.0	1199	20.0
4	Bolt (20/65)	14.0	1160	20.0

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

Test Performed by: Engr. Ubaid A Mughal

Resident Engineer
EA Consulting (Pvt) Ltd.
Sukkur ~ Multan Motorway Project Section – III

Client Reference No.: CRE/EA/M.P-III/315-2019 **Dated: 31-01-2019**

SOM Lab Ref: CED/SOM/230(P-2/2) **Dated: 01-02-2019**

Test Type: Tensile Test

Sample Type: Bolts,

Tensile Test Results

Sample No.	Sample Type	Tested Diameter of Bolt (mm)	Ultimate Tensile Stress (MPa)	Remarks
1	Bolt (10mm)	6.0	997	Thread Failure

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