Mustafa Ali **Test Performed By:** Dr. /Engr. **Bilal A. Khokhar**

Manager Coordination, IZHAR Construction (Pvt) Ltd. Lahore

Client Reference: ICPL/CONST- RPL/19/020 **Dated:** 04-03-2019

SOM Lab Ref: CED/SOM/394(Page-1/1) **Dated:** 04-03-2019

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

Sample Type: Deformed Bar **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	3.881	25	25.08	491	494	268.70	337.70	547	544	688	684	37.5	200	18.8	
2	3.850	25	24.99	491	490	269.00	339.50	548	549	692	693	35.0	200	17.5	
3	0.860	12	11.81	113	110	58.70	76.20	519	536	674	696	27.5	200	13.8	
4	0.868	12	11.87	113	111	60.20	77.00	532	545	681	697	30.0	200	15.0	
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BEND TEST:

25mm	Sample bend through 180 degrees Satisfactorily without any crack
12mm	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

Mustafa Ali **Test Performed By:** Dr. /Engr. **Bilal A. Khokhar**

Manager Coordination, IZHAR Construction (Pvt) Ltd. Lahore

Client Reference: ICPL/CONST- RPL/19/020 **Dated:** 04-03-2019

SOM Lab Ref: CED/SOM/394(Page-1/1) **Dated:** 04-03-2019

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

Sample Type: Deformed Bar **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	3.881	25	25.08	491	494	268.70	337.70	547	544	688	684	37.5	200	18.8	
2	3.850	25	24.99	491	490	269.00	339.50	548	549	692	693	35.0	200	17.5	
3	0.860	12	11.81	113	110	58.70	76.20	519	536	674	696	27.5	200	13.8	
4	0.868	12	11.87	113	111	60.20	77.00	532	545	681	697	30.0	200	15.0	
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BEND TEST:

25mm	Sample bend through 180 degrees Satisfactorily without any crack
12mm	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

Babar Maitla **Test Performed By:** Dr. /Engr. **Bialal A. Khokhar**

Ess Ess Associates Engineering Consultants, Rawalpindi

Client Reference: nil **SOM Lab Ref:** 395(Page-1/1)

Dated: 01-03-2019 **Dated:** 04-03-2019

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	2.598	8	0.986	0.79	0.763	21.30	33.44	59480	61580	93340	96650	1.20	8.0	15.0	
2	2.542	8	0.975	0.79	0.747	21.81	34.27	60900	64410	95680	101180	1.50	8.0	18.8	
3	1.041	6	0.624	0.44	0.306	9.94	13.37	49820	71640	67040	96390	1.10	8.0	13.8	
4	1.037	6	0.623	0.44	0.305	10.40	13.56	52120	75190	67960	98040	1.20	8.0	15.0	
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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

Sr. Construction Engineer **Test Performed By:** **Dr. /Engr.** **Bialal A. Khokhar**

Construction Division-I, WASA, (LDA). Lahore

Client Reference: **CD-I/105** **SOM Lab Ref:** **396(Page-1/1)**

Dated: **01-03-2019** **Dated:** **04-03-2019**

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	0.677	4	0.503	0.20	0.199	5.43	7.67	59920	60220	84530	84960	1.50	8.0	18.8	
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BEND TEST:

# 4	Sample bend through 180 degrees Satisfactorily without any crack

Note:-

Only Two Samples Received and Tested

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

Sub Divisional Officer
Buildings Sub Division, Jaranwala

Test Performed By: **Dr. /Engr.** **Bilal A. Khokhar**

Client Reference: **2403/J**
Dated: **25-02-2019**

SOM Lab Ref: **397 (Page-1/1)**
Dated: **04-03-2019**

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	1.441	6	0.734	0.44	0.423	15.49	19.24	77670	80790	96420	100290	1.20	8.0	15.0	
2	1.496	6	0.748	0.44	0.440	15.75	19.18	78940	78940	96160	96160	1.30	8.0	16.3	
3	0.710	4	0.516	0.20	0.209	6.27	8.05	69130	66160	88800	84980	1.00	8.0	12.5	
4	0.702	4	0.512	0.20	0.206	6.24	8.02	68800	66790	88470	85890	1.20	8.0	15.0	
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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

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

Resident Engineer, NESPAK (Pvt) Ltd. Const. of UET Lahore, Narowal Campus at Narowal

Client Reference: **3854/13/SA/07/536** **SOM Lab Ref:** **398(Page-1/1)**

Dated: **28-02-2019** **Dated:** **04-03-2019**

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	2.733	8	1.011	0.79	0.803	29.20	38.35	81530	80210	107060	105330	1.40	8.0	17.5	
2	2.730	8	1.011	0.79	0.802	30.28	38.89	84520	83260	108570	106940	1.30	8.0	16.3	
3	1.630	6	0.781	0.44	0.479	14.60	21.40	73170	67210	107250	98520	1.40	8.0	17.5	
4	1.624	6	0.779	0.44	0.477	14.80	21.53	74190	68440	107910	99540	1.30	8.0	16.3	
5	0.652	4	0.494	0.20	0.192	7.51	9.17	82850	86300	101170	105380	1.00	8.0	12.5	
6	0.663	4	0.498	0.20	0.195	7.20	9.07	79360	81400	100050	102610	1.00	8.0	12.5	
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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

Maj Adnan khalid® **Test Performed By:** **Dr. /Engr.** **M Rizwan Riaz**

Dy Dir MTL, Const of Mosque at Sector - D, DHA -Ph-VI - (M/S Warraich Const)

Client Reference: **408/241/E/Lab/467.001** **SOM Lab Ref:** **399(Page-1/1)**

Dated: **04-03-2019** **Dated:** **04-03-2019**

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	2.539	8	0.975	0.79	0.746	25.33	34.93	70720	74890	97530	103280	1.60	8.0	20.0	
2	2.456	8	0.959	0.79	0.722	24.31	32.18	67870	74270	89840	98300	1.40	8.0	17.5	
3	1.558	6	0.764	0.44	0.458	13.76	22.17	68980	66270	111130	106760	1.50	8.0	18.8	
4	1.538	6	0.759	0.44	0.452	14.27	22.22	71540	69640	111390	108430	1.30	8.0	16.3	
5	0.612	4	0.479	0.20	0.180	5.96	9.48	65760	73070	104540	116160	1.20	8.0	15.0	
6	0.599	4	0.473	0.20	0.176	6.12	9.14	67450	76640	100830	114580	1.40	8.0	17.5	
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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

Javed Iqbal
Client Engineer, Solitaire of UAE (Pvt) Ltd.

Test Performed By: **Dr. /Engr.** **Bialal A. Khokhar**

Client Reference: **HBH/UET/11**
Dated: **04-03-2019**

SOM Lab Ref: **400(Page-1/1)**
Dated: **04-03-2019**

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	2.606	8	0.988	0.79	0.766	24.77	34.32	69160	71320	95820	98820	1.60	8.0	20.0	
2	2.609	8	0.988	0.79	0.767	24.46	33.81	68300	70350	94400	97230	1.40	8.0	17.5	
3	1.475	6	0.743	0.44	0.433	14.27	20.00	71540	72690	100250	101870	1.20	8.0	15.0	
4	1.479	6	0.744	0.44	0.435	14.04	19.88	70360	71170	99640	100780	1.30	8.0	16.3	
5	0.650	4	0.493	0.20	0.191	6.07	8.23	66890	70040	90720	94990	1.10	8.0	13.8	
6	0.649	4	0.493	0.20	0.191	6.27	8.36	69130	72390	92180	96520	1.10	8.0	13.8	
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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

Engr. Muhammad Hassam Idrees **Test Performed By:** **Dr. /Engr. Bilal A. Khokhar**

Asstt. Executive Engineer-III, Central Civil Division-II, Pak PWD, Lahore

Client Reference: **AEE-III / LCCD-II / 135** **SOM Lab Ref:** **401(Page-1/1)**

Dated: **21-02-2019** **Dated:** **04-03-2018**

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	2.827	8	1.029	0.79	0.831	31.05	38.96	86680	82410	108770	103400	1.20	8.0	15.0	
2	2.793	8	1.022	0.79	0.821	30.70	38.48	85720	82480	107430	103370	1.20	8.0	15.0	
3	1.493	6	0.748	0.44	0.439	16.43	20.64	82370	82550	103470	103700	1.00	8.0	12.5	
4	1.513	6	0.753	0.44	0.445	16.13	20.29	80830	79930	101680	100540	1.10	8.0	13.8	
5	0.637	4	0.488	0.20	0.187	6.09	7.65	67110	71780	84310	90170	1.00	8.0	12.5	
6	0.647	4	0.492	0.20	0.190	6.44	8.51	71040	74780	93860	98800	1.10	8.0	13.8	
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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