Director Projects **Test Performed By:** Dr. /Engr. Nauman Khurram

Innovative® Construction Company, Lahore

Client Reference: ICL/ISM/SKT/0419/04 **Dated:** 29-04-2019

SOM Lab Ref: CED/SOM/738(Page-1/1) **Dated:** 29-04-2019

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	3.834	25	24.93	491	488	250.20	328.50	510	513	669	674	30.0	200	15.0	
2	3.833	25	24.93	491	488	254.50	333.00	518	522	678	682	32.5	200	16.3	
3	2.500	20	20.14	314	318	170.70	220.20	543	536	701	692	25.0	200	12.5	
4	2.480	20	20.06	314	316	167.70	219.00	534	531	697	694	35.0	200	17.5	
5	1.576	16	15.99	201	201	111.00	138.20	552	553	687	689	32.5	200	16.3	
6	1.582	16	16.02	201	202	113.20	142.20	563	562	707	706	32.5	200	16.3	
7	0.989	12	12.67	113	126	71.20	98.00	630	566	867	778	27.5	200	13.8	
8	0.987	12	12.65	113	126	71.50	97.50	632	569	862	776	27.5	200	13.8	
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BEND TEST:

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 Twelve Samples Received and Tested

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

Faisal Mubarik Shabbir Khan(Retd.) **Test Performed By:** **Dr. /Engr.** **M Irfan ul Hassan**

TBt, TI (M), Lieutenant Colonel, Additional Director Development, DHA Phaes-XI (Rehbar) Lahore

Client Reference: **700/3/Girls School/Ph-XI/Projs/1505** **SOM Lab Ref:** **736(Page-1/2)**

Dated: **29-04-2019** **Dated:** **29-04-2019**

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

Gauge Length: **8 inch** **Sample Type:** **Deformed Bar (Moiz 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	2.618	8	0.990	0.79	0.769	23.98	35.07	66940	68760	97900	100570	1.20	8.0	15.0	
2	2.626	8	0.991	0.79	0.772	25.15	35.29	70210	71840	98520	100820	1.30	8.0	16.3	
3	1.470	6	0.742	0.44	0.432	12.15	17.96	60910	62040	90030	91700	1.50	8.0	18.8	
4	1.477	6	0.743	0.44	0.434	11.88	17.79	59530	60350	89160	90390	1.60	8.0	20.0	
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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

Engr Shoukat Ali Rana
Project Manager, Orbit Housing, Lahore

Test Performed By: **Dr. /Engr.** **Nauman Khurram**

Client Reference: **Nil**
Dated: **29-04-2019**

SOM Lab Ref: **730(Page-1/1)**
Dated: **29-04-2019**

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	2.567	8	0.980	0.79	0.754	26.76	36.11	74700	78270	100800	105610	1.00	8.0	12.5	
2	2.654	8	0.997	0.79	0.780	26.81	35.02	74850	75810	97750	99010	1.30	8.0	16.3	
3	1.531	6	0.757	0.44	0.450	19.27	22.48	96570	94420	112660	110160	0.90	8.0	11.3	
4	1.502	6	0.749	0.44	0.441	19.11	22.02	95800	95590	110370	110120	0.90	8.0	11.3	
5	0.648	4	0.492	0.20	0.190	6.29	8.33	69360	73010	91840	96670	1.00	8.0	12.5	
6	0.645	4	0.492	0.20	0.190	6.88	8.74	75880	79870	96340	101410	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

Najam us Saqlain **Test Performed By:** **Dr. /Engr. Nauman Khurram**

Manager Civil, US Denim Mills (Pvt) Ltd. Lahore

Client Reference: **US/Real/CIV/Izmir/02** **SOM Lab Ref:** **CED/SOM/731(Page-1/1)**

Dated: **27-04-2019** **Dated:** **29-04-2019**

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	2.622	8	0.991	0.79	0.771	24.94	34.40	69640	71350	96050	98410	1.40	8.0	17.5	
2	1.532	6	0.757	0.44	0.450	16.31	21.68	81750	79940	108680	106260	1.00	8.0	12.5	
3	0.657	4	0.496	0.20	0.193	5.93	8.53	65420	67800	94090	97500	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
# 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

For MD **Test Performed By:** **Dr. /Engr.** **Nauman Khurram**

PAK ARAB SERVICES TM® Bahawalpur

Client Reference: **117/19** **SOM Lab Ref:** **733(Page-1/2)**

Dated: **29-04-2019** **Dated:** **29-04-2019**

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	2.648	8	0.995	0.79	0.778	24.62	35.09	68730	69790	97950	99460	1.40	8.0	17.5	
2	1.493	6	0.748	0.44	0.439	13.53	19.29	67810	67960	96670	96890	1.30	8.0	16.3	
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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 Four Samples Received and Tested

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

For MD **Test Performed By:** **Dr. /Engr.** **Nauman Khurram**

PAK ARAB SERVICES TM® Bahawalpur

Client Reference: **117/19** **SOM Lab Ref:** **733(Page-2/2)**

Dated: **29-04-2019** **Dated:** **29-04-2019**

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	1.403	6	0.724	0.44	0.412	10.06	15.62	50430	53860	78280	83600	1.70	8.0	21.3	
2	0.614	4	0.479	0.20	0.180	4.64	6.19	51150	56830	68230	75820	1.50	8.0	18.8	
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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 Four Samples Received and Tested

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

asim Riaz Hashmat Khan
Lahore

Test Performed By: **Dr. /Engr.** **M Irfan Ul Hassan**

Client Reference: **nil**
Dated: **29-04-2019**

SOM Lab Ref: **734(Page-1/1)**
Dated: **29-04-2019**

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	1.441	6	0.734	0.44	0.423	14.90	18.86	74700	77700	94530	98330	1.00	8.0	12.5	
2	0.664	4	0.498	0.20	0.195	6.65	8.74	73290	75170	96340	98810	1.00	8.0	12.5	
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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 Four Samples Received and Tested

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

Faisal Mubarik Shabbir Khan(Retd.)

Test Performed By: **Dr. /Engr.** **M Irfan ul Hassan**

TBt, TI (M), Lieutenant Colonel, Additional Director Development, DHA Phaes-XI (Rehbar) Lahore

Client Reference: **700/3/Girls School/Ph-XI/Projs/1502**

Dated: **26-04-2019**

SOM Lab Ref: **736(Page-2/2)**

Dated: **29-04-2019**

Test: **Tension Test & Bend Test**

Test Specification: **ASTM-A-615 Deformed Bar (AF 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	1.647	6	0.785	0.44	0.484	14.53	20.76	72810	66190	104080	94620	1.10	8.0	13.8	
2	1.595	6	0.773	0.44	0.469	13.93	19.27	69850	65530	96570	90600	1.40	8.0	17.5	
3	0.651	4	0.493	0.20	0.191	5.73	7.34	63180	66150	80940	84750	1.20	8.0	15.0	
4	0.624	4	0.483	0.20	0.183	6.60	8.02	72730	79490	88470	96690	1.10	8.0	13.8	
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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

Faisal Mubarik Shabbir Khan(Retd.) **Test Performed By:** **Dr. /Engr.** **M Irfan ul Hassan**

TBt, TI (M), Lieutenant Colonel, Additional Director Development, DHA Phaes-XI (Rehbar) Lahore

Client Reference: **700/3/Girls School/Ph-XI/Projs/1505** **SOM Lab Ref:** **736(Page-1/2)**

Dated: **29-04-2019** **Dated:** **29-04-2019**

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

Gauge Length: **8 inch** **Sample Type:** **Deformed Bar (Moiz 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	2.618	8	0.990	0.79	0.769	23.98	35.07	66940	68760	97900	100570	1.20	8.0	15.0	
2	2.626	8	0.991	0.79	0.772	25.15	35.29	70210	71840	98520	100820	1.30	8.0	16.3	
3	1.470	6	0.742	0.44	0.432	12.15	17.96	60910	62040	90030	91700	1.50	8.0	18.8	
4	1.477	6	0.743	0.44	0.434	11.88	17.79	59530	60350	89160	90390	1.60	8.0	20.0	
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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

Hafiz Muhammad Wasif Iqbal **Test Performed By:** **Dr. /Engr.** **Nauman Khurram**

Project Manager - Civil, Kohinoor Textile Mills (Pvt)m Ltd. Lahore

Client Reference: **Nil** **SOM Lab Ref:** **737(Page-1/1)**

Dated: **29-04-2019** **Dated:** **29-04-2019**

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	2.619	8	0.990	0.79	0.770	25.81	36.29	72060	73930	101310	103940	1.10	8.0	13.8	
2	2.613	8	0.989	0.79	0.768	25.76	36.16	71920	73980	100940	103830	1.30	8.0	16.3	
3	1.467	6	0.741	0.44	0.431	12.15	18.52	60910	62180	92840	94780	1.40	8.0	17.5	
4	1.469	6	0.742	0.44	0.432	12.10	18.88	60650	61780	94630	96380	1.60	8.0	20.0	
5	0.655	4	0.494	0.20	0.192	5.93	8.53	65420	68150	94090	98010	1.50	8.0	18.8	
6	0.655	4	0.494	0.20	0.192	5.93	8.56	65420	68150	94420	98360	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

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

Innovative® Construction Company, Lahore

Client Reference: **ICL/ISM/SKT/0419/04** **SOM Lab Ref:** **738(Page-1/1)**

Dated: **29-04-2019** **Dated:** **29-04-2019**

Test: **Tension Test & Bend Test** **Test Specification:** **ASTM-A-615 Deformed Bar (Karachi 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	1.039	5	0.623	0.31	0.305	9.45	14.09	67230	68330	100230	101870	1.50	8.0	18.8	
2	1.038	5	0.623	0.31	0.305	9.25	14.09	65780	66860	100230	101870	1.40	8.0	17.5	
3	0.658	4	0.496	0.20	0.193	7.08	8.74	78130	80960	96340	99830	1.00	8.0	12.5	
4	0.661	4	0.497	0.20	0.194	6.52	8.26	71940	74170	91050	93870	1.00	8.0	12.5	
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BEND TEST:

# 5	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