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

Project Manager, A.S. Enterprises, Consultant: AA Associates(Project: US Apparel & Textile Pvt. Ltd.)

Client Reference: **USD/ASE/20** **Dated:** **03-12-2020**

SOM Lab Ref: **CED/SOM/3363(Page-1/1)** **Dated:** **03-12-2020**

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

Sample Type: **M S 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	1.565	16	15.92	201	199	72.30	103.20	360	364	513	519	35.0	200	17.5	
2	1.572	16	15.97	201	200	71.20	104.20	354	356	518	521	37.5	200	18.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

BEND TEST:

16mm	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

Major Muhammad Aslam, (Retd) **Test Performed By:** **Dr. /Engr.** **S. Asad Ali Gillani**

Resident Engineer, Penta Square Project, Al-Imam Enterprises (Pvt) Ltd Lahore

Client Reference: **Al-Imam/746/PS-1/DHA/LHE/1203** **Dated:** **25-11-2020**

SOM Lab Ref: **CED/SOM/3367(Page-1/1)** **Dated:** **03-12-2020**

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

Sample Type: **Deformed Bar(Kamran 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	3.820	25	24.90	491	487	236.70	318.50	482	487	649	655	37.5	200	18.8	
2	3.819	25	24.89	491	486	239.00	326.70	487	492	666	672	35.0	200	17.5	
3	0.987	12	12.65	113	126	61.50	82.00	544	490	725	653	32.5	200	16.3	
4	0.995	12	12.70	113	127	60.50	81.20	535	478	718	641	35.0	200	17.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

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

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

Manager Civil Works, Nishat Mill Ltd, Lahore

Client Reference: NA/GU/ST/001 **Dated:** 03-11-2020

SOM Lab Ref: CED/SOM/3368(Page-1/1) **Dated:** 03-12-2020

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

Sample Type: Deformed Bar(AFCO 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	2.440	20	19.90	314	311	149.00	210.20	474	480	669	676	35.0	200	17.5	
2	2.460	20	19.97	314	313	176.70	227.70	562	564	725	727	30.0	200	15.0	
3	1.586	16	16.04	201	202	79.00	111.50	393	391	555	552	37.5	200	18.8	
4	1.584	16	16.03	201	202	80.50	116.50	400	399	579	578	35.0	200	17.5	
5	0.985	12	12.64	113	125	67.20	88.00	594	536	778	702	25.0	200	12.5	
6	0.997	12	12.71	113	127	71.70	89.20	634	565	789	703	27.5	200	13.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

BEND TEST:

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 Nine Samples Received and Tested

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

Construction Manager
Guarantee Engineers (Pvt) Ltd. Lahore

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

Client Reference: **nil**
Dated: **18-11-2020**

SOM Lab Ref: **3366(Page-1/1)**
Dated: **03-12-2020**

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	25.45	35.29	71060	72910	98520	101080	1.00	8.0	12.5	
2	2.620	8	0.990	0.79	0.770	25.96	35.58	72480	74370	99320	101900	1.20	8.0	15.0	
3	1.682	6	0.793	0.44	0.494	17.40	22.96	87220	77690	115070	102490	1.20	8.0	15.0	
4	1.688	6	0.795	0.44	0.496	17.53	22.85	87880	77960	114560	101620	1.10	8.0	13.8	
5	1.072	5	0.633	0.31	0.315	8.41	12.51	59830	58880	88990	87570	1.50	8.0	18.8	
6	1.069	5	0.632	0.31	0.314	8.41	12.61	59830	59070	89710	88570	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
# 5	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

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

Project Manager, Banu Mukhtar Contracting (Pvt) Ltd., Lahore

Client Reference: **BML-300841/001** **SOM Lab Ref:** **3369(Page-2/2)**

Dated: **03-12-2020** **Dated:** **03-12-2020**

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	1.535	6	0.758	0.44	0.451	13.88	20.74	69590	67900	103980	101440	1.30	8.0	16.3	
2	1.537	6	0.759	0.44	0.452	13.86	20.71	69490	67650	103830	101070	1.50	8.0	18.8	
3	0.719	4	0.518	0.20	0.211	6.83	9.50	75320	71390	104770	99300	1.50	8.0	18.8	
4	0.719	4	0.518	0.20	0.211	6.93	9.50	76440	72460	104770	99300	1.40	8.0	17.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

BEND TEST:

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

Note:-

Only Six Samples Received and Tested

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

Test Performed by: Dr.S. Asad ali Gillani

Manager Engineering

M/S Ali Zaman (Pvt) Ltd.

31-B, Zafar Ali Road, Gulberg 5, Lahore

Client Reference No.: azl/460-2020 **Dated: 03-12-2020**

SOM Lab Ref: CED/SOM/3371(Page 1/1) **Dated: 04-12-2020**

Test Type: Hardness Test

Sample Type: Mild Steel(MS) Sheet

Hardness Test Details:

Machine used: Avery Rockwell Hardness Testing Machine

(Minor Load: 10 Kgf Major Load: 90.0 kgf Scale: B)

Hardness Test Results

Sample No.	Sample Type	Hardness
1	MS Sheet (3.25mm)	HR – 34.33– B
2	MS Sheet (3mm)	HR – 68.33 – B
3	MS Sheet (2mm)	HR – 47.33 – B

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