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/1111** **Dated:** **07-07-2020**

SOM Lab Ref: **CED/SOM/2744(Page-1/1)** **Dated:** **17-07-2020**

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

Sample Type: **Deformed Steel Bar(Al Moiz 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	3.862	25	25.03	491	492	238.20	318.20	485	485	648	647	35.0	200	17.5	
2	3.830	25	24.92	491	488	232.70	314.00	474	478	640	644	35.0	200	17.5	
3	2.374	20	19.62	314	302	141.50	197.50	450	468	629	654	30.0	200	15.0	
4	2.257	20	19.14	314	288	132.70	190.00	422	462	605	661	35.0	200	17.5	
5	1.574	16	15.98	201	200	98.00	136.50	487	489	679	681	30.0	200	15.0	
6	1.585	16	16.03	201	202	104.70	138.50	521	519	689	686	27.5	200	13.8	
7	0.906	12	12.12	113	115	54.20	77.70	479	470	687	674	37.5	200	18.8	
8	0.905	12	12.11	113	115	54.50	78.00	482	473	690	677	35.0	200	17.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

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

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

Chief Resident Engineer, Package -I, NESPAK, (Pvt) Ltd. Lahore

Client Reference: **4042/13/FAM/J-Bolt-165** **SOM Lab Ref:** **2745(Page-1/1)**

Dated: **17-07-2020** **Dated:** **17-07-2020**

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

Gauge Length: **8 inch** **Sample Type:** **J-Bolt**

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	2.717	8	1.008	0.79	0.798	26.40	50.89	73710	72970	142060	140640	1.50	8.0	18.8	
2	1.456	6	0.738	0.44	0.428	11.26	15.92	56460	58050	79810	82050	1.10	8.0	13.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

BEND TEST:

--	No Bend test performed	**Note:-**
		Only Two Samples Received and Tested

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

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

Resident Engineer, Fazaia Housing Scheme, Gujranwala

Client Reference: **FHSG/PMO/6015/5/4/DEV** **SOM Lab Ref:** **2746(Page-1/1)**

Dated: **16-07-2020** **Dated:** **17-07-2020**

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	1.467	6	0.741	0.44	0.431	13.71	18.47	68730	70160	92590	94520	1.20	8.0	15.0	
2	1.471	6	0.742	0.44	0.432	13.53	18.45	67810	69060	92480	94200	1.00	8.0	12.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

BEND TEST:

# 6	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

Executive Engineer (B & W)
UVAS, Lahore

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

Client Reference: E.E/532
Dated: 15-07-2020

SOM Lab Ref: 2747 (Page-1/1)
Dated: 17-07-2020

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	1.457	6	0.738	0.44	0.428	13.97	20.03	70000	71960	100400	103220	1.20	8.0	15.0	
2	0.668	4	0.500	0.20	0.196	6.42	8.46	70820	72270	93300	95200	1.20	8.0	15.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

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

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

Sub Engineer, (Civil) University of The Punjab, Lahore

Client Reference: **P-532 - CE** **SOM Lab Ref:** **2748(Page-1/1)**

Dated: **11-07-2020** **Dated:** **17-07-2020**

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	1.583	6	0.769	0.44	0.465	13.15	19.88	65910	62370	99640	94280	1.30	8.0	16.3	
2	0.660	4	0.497	0.20	0.194	6.63	8.66	73070	75330	95550	98500	0.90	8.0	11.3	
3	0.646	4	0.492	0.20	0.190	6.52	8.69	71940	75730	95770	100810	1.00	8.0	12.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

BEND TEST:

# 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

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

XEN Garrison Engineer (Army) Jhelum Cantt Cantt. Lahore (ID: SDO B & R - II -Local)

Client Reference: **6342/21/E-6** **SOM Lab Ref:** **2749(Page-1/2)**

Dated: **14-07-2020** **Dated:** **17-07-2020**

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

Gauge Length: **8 inch** **Sample Type:** **Deformed Bar (G-60)**

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	2.629	8	0.992	0.79	0.773	24.38	34.53	68070	69570	96390	98510	1.20	8.0	15.0	
2	2.609	8	0.988	0.79	0.767	23.36	33.10	65230	67180	92400	95180	1.20	8.0	15.0	
3	1.474	6	0.743	0.44	0.433	14.12	20.13	70770	71910	100910	102540	1.00	8.0	12.5	
4	1.467	6	0.741	0.44	0.431	14.63	19.54	73320	74850	97950	100000	1.10	8.0	13.8	
5	1.032	5	0.621	0.31	0.303	9.40	13.20	66870	68410	93920	96090	1.10	8.0	13.8	
6	1.052	5	0.627	0.31	0.309	9.89	13.68	70350	70580	97330	97640	1.00	8.0	12.5	
7	0.665	4	0.498	0.20	0.195	6.34	8.82	69920	71710	97230	99730	1.10	8.0	13.8	
8	0.658	4	0.496	0.20	0.193	6.12	9.04	67450	69890	99710	103320	1.00	8.0	12.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

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
# 4	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

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

XEN Garrison Engineer (Army) Jhelum Cantt Cantt. Lahore (ID: SDO B & R - II -Local)

Client Reference: **6342/21/E-6** **SOM Lab Ref:** **2749(Page-2/2)**

Dated: **14-07-2020** **Dated:** **17-07-2020**

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

Gauge Length: **8 inch** **Sample Type:** **Deformed Bar (G-40)**

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	1.478	6	0.743	0.44	0.434	10.83	16.77	54270	55020	84050	85210	1.70	8.0	21.3	
2	1.542	6	0.759	0.44	0.453	11.28	17.33	56560	54940	86860	84370	1.50	8.0	18.8	
3	1.031	5	0.621	0.31	0.303	10.04	13.05	71440	73090	92830	94970	1.00	8.0	12.5	
4	1.036	5	0.622	0.31	0.304	10.06	13.05	71580	72990	92830	94660	1.10	8.0	13.8	
5	0.685	4	0.506	0.20	0.201	4.91	7.19	54180	53910	79250	78860	1.50	8.0	18.8	
6	0.668	4	0.500	0.20	0.196	4.99	7.13	55080	56210	78580	80180	1.50	8.0	18.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

BEND TEST:

# 6	Sample bend through 180 degrees Satisfactorily without any crack
# 5	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 Kaleem Sheikh
Chief Resident Engineer, M-3 IC Industrial City, Faislabad

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

Client Reference: **CRE/M3IC/FIC-035/Lab/132**
Dated: **15-07--2020**

SOM Lab Ref: **2750 (Page-1/1)**
Dated: **17-07-2020**

Test: **Tension Test & Bend Test** **Test Specification:** **ASTM-A-615**
Gauge Length: **8 inch** **Sample Type:** **Deformed Bar(Agha 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	1.039	5	0.623	0.31	0.305	9.86	13.81	70130	71280	98270	99880	1.00	8.0	12.5	
2	1.023	5	0.619	0.31	0.301	9.48	13.27	67450	69460	94420	97250	1.00	8.0	12.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

BEND TEST:

# 5	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

Test Performed by: Dr.S. Asad ali Gillani

Furqan Ali Malik

Chief Resident Engineer, Package- I

NESPAK (Pvt)

Traffic Signals Along the Route of Lahore Orange Line Metro Train Project.

Package – 1 A Dera Gujran G. T Road Lahore

Client Reference No.: 4042/13/FAM/J-BOLT-165 **Dated: 17-07-2020**

SOM Lab Ref: CED/SOM/2745(Page 1/2) **Dated: 17-07-2020**

Test Type: Tensile Test

Sample Type: J - Bolt

Sr. No.	Designation	Tested Dia	Area	Yield load	Ultimate Load	Yield Stress	Ultimate Stress	Elongation at 4D	% Elongation	Reduction of Area %
	-----	(in)	(in^2)	(kN)	(kN)	(psi)	(psi)	(in)		
1	**25**	**1.008**	**0.798**	**26.40**	**50.89**	**72970**	**140640**	**1.50**	**18.8**	35.9
2	**20.**	**0.738**	**0.428**	**11.26**	**15.92**	**58050**	**82050**	**1.10**	**13.8**	30.8
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
Two Samples for Tensile Test										

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

Test Performed by: Dr.S. Asad ali Gillani

Furqan Ali Malik

Chief Resident Engineer, Package- I

NESPAK (Pvt)

Traffic Signals Along the Route of Lahore Orange Line Metro Train Project.

Package – 1 A Dera Gujran G. T Road Lahore

Client Reference No.: 4042/13/FAM/J-BOLT-165 **Dated: 17-07-2020**

SOM Lab Ref: CED/SOM/2745(Page 2/2) **Dated: 17-07-2020**

Test Type: Hardness Test

Sample Type: J - Bolt

Hardness Test Details:

Machine used: Avery Rockwell Hardness Testing Machine

(Minor Load: 10 Kgf Major Load: 90 kgf Scale: B)

Hardness Test Results

Sample No.	Sample Type	Hardness
1	Bolt (1”)	HR – 91.166 –B
2	Bolt (3/4”)	HR – 84.166 –B

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

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