

Maj Adnan Khalid ®

**Test Performed By:**

Dr. /Engr.

S Asad Ali Gillani

Dy Dir MTL, Const of (U/G) External Elect Works Alongwith Street Light System Pak-E-3, (M/s DHA FWO)

**Client Reference:** 408/241/E/983/285

**Dated:** 24-09-2020

**SOM Lab Ref:** CED/SOM/3062 (Page-1/1)

**Dated:** 07-10-2019

**Test:** Tension Test

**Test Specification:** ASTM-F-1554

**Sample Type:** J - Bolt

**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 <sup>2</sup>	mm <sup>2</sup>	kN	kN	MPa	MPa	MPa	MPa	mm	mm	%	
1	3.915	25	25.21	491	499	185.70	287.70	378	373	586	577	40.0	200	20.0	
2	3.933	25	25.26	491	501	195.00	314.70	397	390	641	629	42.5	200	21.3	
3	3.893	25	25.13	491	496	214.00	358.20	436	432	730	723	42.5	200	21.3	
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**BEND TEST:**

--	No Bend test performed	<b>Note:-</b>  Only Three Samples Received and Tested

Note: Please always confirm the results of above report on web [www.uet-civil.edu.pk](http://www.uet-civil.edu.pk)

Sami Ullah Warraich

Project Manager, ICPL,- OMPL 0629, IZHAR Construction (Pvt) Ltd. Lahore

**Test Performed By:**

Dr. /Engr.

S. Asad Ali  
Gillani

**Client Reference:** ICPL/CONST-OMPL/20/056

**Dated:** 06-10-2020

**Test:** Tension Test & Bend Test

**Gauge Length:** 8 inch

**Test Specification:**

**Sample Type:**

**SOM Lab**

**Ref:** 3064(Page-1/1)

**Dated:** 07-10-2020

ASTM-A-615

Deformed 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 <sup>2</sup>	in <sup>2</sup>	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	1.451	6	0.736	0.44	0.426	14.17	20.00	71020	73360	100250	103540	1.00	8.0	12.5	
2	1.452	6	0.737	0.44	0.427	14.29	20.10	71640	73820	100760	103830	1.00	8.0	12.5	
3	0.658	4	0.496	0.20	0.193	6.49	8.84	71610	74200	97460	100990	1.40	8.0	17.5	
4	0.659	4	0.497	0.20	0.194	6.70	8.87	73850	76140	97800	100820	1.30	8.0	16.3	
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**BEND TEST:**

# 6	Sample bend through 180 degrees Satisfactorily without any crack	<b>Note:-</b>  Only Six Samples Received and Tested
# 4	Sample bend through 180 degrees Satisfactorily without any crack	

Note: Please always confirm the results of above report on web [www.uet-civil.edu.pk](http://www.uet-civil.edu.pk)

Assistant Executive Engineer-IV,  
Central Civil Division No. II, Pak P.W. D., Lahore

Test Performed By: Dr. /Engr.

S. Asad Ali  
Gillani

Client Reference: AEE-III/LCCD-II/LHR/23

Dated: 29-09-2020

SOM Lab

Ref: 3065(Page-1/1)

Dated: 07-10-2020

Test: Tension Test & Bend Test

Test Specification:

ASTM-A-615

Gauge Length: 8 inch

Sample Type:

Deformed 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 <sup>2</sup>	in <sup>2</sup>	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	1.621	6	0.778	0.44	0.476	18.76	24.13	94020	86910	120940	111800	1.10	8.0	13.8	
2	1.624	6	0.779	0.44	0.477	18.65	23.96	93510	86250	120070	110760	1.20	8.0	15.0	
3	1.058	5	0.629	0.31	0.311	12.97	16.06	92250	91950	114220	113860	1.40	8.0	17.5	
4	1.057	5	0.629	0.31	0.311	9.94	13.97	70710	70480	99360	99040	1.60	8.0	20.0	
5	0.680	4	0.505	0.20	0.200	6.52	8.97	71940	71940	98920	98920	1.20	8.0	15.0	
6	0.682	4	0.505	0.20	0.200	6.85	8.99	75540	75540	99150	99150	1.20	8.0	15.0	
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**BEND TEST:**

# 8	Sample bend through 180 degrees Satisfactorily without any crack	<b>Note:-</b>  Only Nine Samples Received and Tested
# 6	Sample bend through 180 degrees Satisfactorily without any crack	
# 4	Sample bend through 180 degrees Satisfactorily without any crack	

Note: Please always confirm the results of above report on web [www.uet-civil.edu.pk](http://www.uet-civil.edu.pk)

Maj Adnan khalid®

Test Performed By: Dr. /Engr.

S. Asad Ali  
Gillani

Dy Dir MTL, Infra Dew Works at Sector - Q, Pkg - 1, DHA Ph-IX - (M/S DHA - C )

Client Reference: 408/241/E/Lab/999/6143

SOM Lab

Ref: 3066(Page-1/1)

Dated: 06-10-2019

Dated: 07-10-2019

Test: Tension Test & Bend Test

Test Specification:

ASTM-A-615

Gauge Length: 8 inch

Sample Type:

Deformed Bar (Saeed Kasur 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 <sup>2</sup>	in <sup>2</sup>	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	1.451	6	0.736	0.44	0.426	12.56	20.20	62950	65020	101270	104600	1.30	8.0	16.3	
2	1.449	6	0.736	0.44	0.426	12.54	20.10	62850	64910	100760	104070	1.30	8.0	16.3	
3	0.655	4	0.494	0.20	0.192	6.07	9.43	66890	69670	103980	108310	1.30	8.0	16.3	
4	0.661	4	0.497	0.20	0.194	6.14	9.43	67670	69770	103980	107190	1.10	8.0	13.8	
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**BEND TEST:**

# 6	Sample bend through 180 degrees Satisfactorily without any crack	<b>Note:-</b>  Only Six Samples Received and Tested
# 4	Sample bend through 180 degrees Satisfactorily without any crack	

Note: Please always confirm the results of above report on web [www.uet-civil.edu.pk](http://www.uet-civil.edu.pk)

Qamar Uz Zaman(Proj. Manager)

Test Performed By: Dr. /Engr. S. Asas Ali Gillani

Aujla & Associates(Overhead Water Tank No. 9 Bowl, Royal Palm City Housing Scheme Gujranwala

Client Reference: nil

SOM Lab

Ref: 3068(Page-1/4)

Dated: 07-10-2020

Dated: 07-10-2020

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 <sup>2</sup>	in <sup>2</sup>	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	1.406	6	0.725	0.44	0.413	11.69	16.99	58610	62440	85180	90750	1.60	8.0	20.0	
2	1.417	6	0.728	0.44	0.416	12.00	17.62	60140	63610	88340	93440	1.50	8.0	18.8	
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**BEND TEST:**

# 6	Sample bend through 180 degrees Satisfactorily without any crack	<b>Note:-</b>  Only Three Samples Received and Tested

Note: Please always confirm the results of above report on web [www.uet-civil.edu.pk](http://www.uet-civil.edu.pk)

Qamar Uz Zaman(Proj. Manager)

Test Performed By: Dr. /Engr. S. Asas Ali Gillani

Aujla & Associates(Overhead Water Tank No. 9 Bowl, Royal Palm City Housing Scheme Gujranwala

Client Reference: nil

SOM Lab

Ref: 3068(Page-1/4)

Dated: 07-10-2020

Dated: 07-10-2020

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 <sup>2</sup>	in <sup>2</sup>	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	1.406	6	0.725	0.44	0.413	11.69	16.99	58610	62440	85180	90750	1.60	8.0	20.0	
2	1.417	6	0.728	0.44	0.416	12.00	17.62	60140	63610	88340	93440	1.50	8.0	18.8	
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**BEND TEST:**

# 6	Sample bend through 180 degrees Satisfactorily without any crack	<b>Note:-</b>  Only Three Samples Received and Tested

Note: Please always confirm the results of above report on web [www.uet-civil.edu.pk](http://www.uet-civil.edu.pk)

Qamar Uz Zaman(Proj. Manager)

Test Performed By: Dr. /Engr. S. Asas Ali Gillani

Aujla & Associates(Overhead Water Tank No. 8 Shaft, Royal Palm City Housing Scheme Gujranwala)

Client Reference: nil

SOM Lab

Ref: 3068(Page-3/4)

Dated: 07-10-2020

Dated: 07-10-2020

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 <sup>2</sup>	in <sup>2</sup>	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	1.438	6	0.734	0.44	0.423	11.93	17.48	59780	62190	87630	91150	1.40	8.0	17.5	
2	1.473	6	0.743	0.44	0.433	12.71	18.22	63720	64750	91310	92780	1.30	8.0	16.3	
3	0.684	4	0.506	0.20	0.201	7.24	9.55	79810	79420	105330	104800	1.00	8.0	12.5	
4	0.686	4	0.507	0.20	0.202	7.46	9.73	82290	81470	107350	106290	0.90	8.0	11.3	
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**BEND TEST:**

# 6	Sample bend through 180 degrees Satisfactorily without any crack	<b>Note:-</b>  Only Six Samples Received and Tested
# 4	Sample bend through 180 degrees Satisfactorily without any crack	

Note: Please always confirm the results of above report on web [www.uet-civil.edu.pk](http://www.uet-civil.edu.pk)

Qamar Uz Zaman(Proj. Manager)

Test Performed By: Dr. /Engr. S. Asas Ali Gillani

Aujla & Associates(Warehouse Building Columns, Royal Palm City Housing Scheme Gujranwala)

Client Reference: nil

SOM Lab

Ref: 3068(Page-4/4)

Dated: 07-10-2020

Dated: 07-10-2020

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 <sup>2</sup>	in <sup>2</sup>	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	1.411	6	0.727	0.44	0.415	11.85	17.79	59380	62950	89160	94530	1.30	8.0	16.3	
2	1.409	6	0.726	0.44	0.414	11.88	17.43	59530	63270	87370	92860	1.50	8.0	18.8	
3	0.658	4	0.496	0.20	0.193	7.31	9.28	80600	83520	102290	106000	1.00	8.0	12.5	
4	0.673	4	0.502	0.20	0.198	7.46	9.55	82290	83120	105330	106390	1.10	8.0	13.8	
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**BEND TEST:**

# 6	Sample bend through 180 degrees Satisfactorily without any crack	<b>Note:-</b>  Only Six Samples Received and Tested
# 4	Sample bend through 180 degrees Satisfactorily without any crack	

Note: Please always confirm the results of above report on web [www.uet-civil.edu.pk](http://www.uet-civil.edu.pk)



Project Manager

Test Performed By:

Dr. /Engr.

S. Asad Ali  
Gillani

Japan Center, Peco Road Near Pindi Stop, 57-A1 Township Lahore

Client Reference: nil

SOM Lab

Ref: 3069(Page-1/1)

Dated: 07-10-2020

Dated: 07-10-2020

Test: Tension Test & Bend Test

Test Specification:

ASTM-A-615

Gauge Length: 8 inch

Sample Type:

Deformed 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 <sup>2</sup>	in <sup>2</sup>	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	2.659	8	0.997	0.79	0.781	25.08	34.68	70010	70820	96820	97930	1.60	8.0	20.0	
2	2.665	8	0.998	0.79	0.783	25.94	35.93	72430	73080	100320	101210	1.50	8.0	18.8	
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**BEND TEST:**

# 8	Sample bend through 180 degrees Satisfactorily without any crack	<b>Note:-</b>  Only Three Samples Received and Tested

Note: Please always confirm the results of above report on web [www.uet-civil.edu.pk](http://www.uet-civil.edu.pk)

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

Maj Adnan Khalid ®

Dy Dir MTL.

Testing of J-Bolt, External (U/G) Elec with Street Light System Sector-P Pkg -1,

Prism -9, DHA Phase-IX - (M/S DHA Const Coy)

Client Reference: 408/241/E/994/113

Dated: 05-10-2020

SOM Lab Ref: CED/SOM/3062(Page-1/1)

Dated: 07-10-2020

Test: Tension Test

Test Specification: ASTM-F -1554

Sample Type: J Bolt

Gauge Length: 200 mm

S.No.	Dia.		Area	Yield Load	Ultimate Load	Yield Stress	Ultimate. Stress	Elongation	Gauge Length	%age Elongation	Reduction of Area (%)
	Original Diameter	Tested Diameter									
	mm	mm	mm <sup>2</sup>	kN	kN	MPa	MPa	mm	M m	%	
1	25	25.66	517	206.70	318.50	400	617	37.5	200	17.5	39.2
2	25	25.61	515	217.00	363.70	422	707	42.5	200	23.8	49.9
3	25	25.16	497	218.50	323.70	440	651	42.5	200	20.0	45.5

**Note:-**

Only Three Samples  
Received and Tested

Note: Please always confirm the results of above report on web [www.uet-civil.edu.pk](http://www.uet-civil.edu.pk)

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

Maj Adnan Khalid ®

Dy Dir MTL.

Testing of Anchor -Bolt, (Y-Type) External (U/G) Elec with Street Light System Sector-P Pkg -1, Prism -9, DHA Phase-IX - (M/S DHA Const Coy)

**Client Reference:** 408/241/E/995-B/114

**Dated:** 05-10-2020

**SOM Lab Ref:** CED/SOM/3063 (Page-1/1)

**Dated:** 07-10-2020

**Test:** Tension Test

**Test Specification:** ASTM-F -1554

**Sample Type:** Y Bolt

**Gauge Length:** 25 mm

S.No.	Dia.		Area	Yield Load	Ultimate Load	Yield Stress	Ultimate. Stress	Elongation	Gauge Length	%age Elongation	Reduction of Area (%)
	Original Diameter	Tested Diameter									
	mm	mm	mm <sup>2</sup>	kN	kN	MPa	MPa	mm	mm	%	
1	12	12.0	113.0	-	55.0	-	468.81	10.00	25	20.0	39.5
2	12	12.0	113.0	-	62.0	-	548.2	11.25	25	22.5	58.5
3	12	12.0	113.0	-	76.0	-	671.99	11.25	25	22.5	64.0

**Note:-**

Only Three Samples  
Received and Tested

Note: Please always confirm the results of above report on web [www.uet-civil.edu.pk](http://www.uet-civil.edu.pk)

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

Maj Adnan Khalid ®

Dy Dir MTL.

Testing of J-Bolt, External (U/G) Elec with Street Light System Sector-P Pkg -1,

Prism -9, DHA Phase-IX - (M/S DHA Const Coy)

Client Reference: 408/241/E/994/113

Dated: 05-10-2020

SOM Lab Ref: CED/SOM/3062(Page-1/1)

Dated: 07-10-2020

Test: Tension Test

Test Specification: ASTM-F -1554

Sample Type: J Bolt

Gauge Length: 200 mm

S.No.	Dia.		Area	Yield Load	Ultimate Load	Yield Stress	Ultimate. Stress	Elongation	Gauge Length	%age Elongation	Reduction of Area (%)
	Original Diameter	Tested Diameter									
	mm	mm	mm <sup>2</sup>	kN	kN	MPa	MPa	mm	M m	%	
1	25	25.66	517	206.70	318.50	400	617	37.5	200	17.5	39.2
2	25	25.61	515	217.00	363.70	422	707	42.5	200	23.8	49.9
3	25	25.16	497	218.50	323.70	440	651	42.5	200	20.0	45.5

**Note:-**

Only Three Samples  
Received and Tested

Note: Please always confirm the results of above report on web [www.uet-civil.edu.pk](http://www.uet-civil.edu.pk)

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

Maj Adnan Khalid ®

Dy Dir MTL.

Testing of Anchor -Bolt, (Y-Type) External (U/G) Elec with Street Light System Sector-P Pkg -1, Prism -9, DHA Phase-IX - (M/S DHA Const Coy)

**Client Reference:** 408/241/E/995-B/114

**Dated:** 05-10-2020

**SOM Lab Ref:** CED/SOM/3063 (Page-1/1)

**Dated:** 07-10-2020

**Test:** Tension Test

**Test Specification:** ASTM-F -1554

**Sample Type:** Y Bolt

**Gauge Length:** 25 mm

S.No.	Dia.		Area	Yield Load	Ultimate Load	Yield Stress	Ultimate. Stress	Elongation	Gauge Length	%age Elongation	Reduction of Area (%)
	Original Diameter	Tested Diameter									
	mm	mm	mm <sup>2</sup>	kN	kN	MPa	MPa	mm	mm	%	
1	12	12.0	113.0	-	55.0	-	468.81	10.00	25	20.0	39.5
2	12	12.0	113.0	-	62.0	-	548.2	11.25	25	22.5	58.5
3	12	12.0	113.0	-	76.0	-	671.99	11.25	25	22.5	64.0

**Note:-**

Only Three Samples  
Received and Tested

Note: Please always confirm the results of above report on web [www.uet-civil.edu.pk](http://www.uet-civil.edu.pk)

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

Majid Aziz  
Material Engineer  
NESPAK (Pvt) Ltd.  
Up-Gradation/Dualization of Motorway from Link Kohat Via Jand Pindigheb to  
Khushal Garh (PKG-1)

**Client Reference:** 36264/103/JH/051

Dated 05-10-2020

**SOM Laboratory Reference:** CED/SOM/3070(Page-1/2)

Dated 07-10-2020

**Test:** Tensile Strength, Elongation at Break

**Sample Type:** Water Stopper

**TENSILE STRENGTH TEST (AS PER ASTM-D-638)**

S. No	Sample Size (mm x mm)	Tensile Strength at (kN)	Tensile Strength (MPa)	% age Elongation
1	21.5 x 9.0	1.13	5.978	120.0

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

Majid Aziz  
Material Engineer  
NESPAK (Pvt) Ltd.  
Up-Gradation/Dualization of Motorway from Link Kohat Via Jand Pindigheb to  
Khushal Garh (PKG-1)

**Client Reference:** 36264/103/JH/060

Dated 05-10-2020

**SOM Laboratory Reference:** CED/SOM/3070(Page-2/2)

Dated 07-10-2020

**Test:** Tensile Strength,

**Sample Type:** reinforcing Strips

**TENSILE STRENGTH TEST**

S. No	Sample Size (mm x mm)	Tensile Strength - (kN)	Tensile Strength (MPa)
1	45.0 x 3.5	7.0	44.44