

Engineer Ikram Javed (Sec-6)  
Resident Engineer, SMEC International (Pvt) Ltd. Bahawalpur

Test Performed By: Dr. /Engr. Numan Khurram

Client Reference: 5065057/6/6/424  
SOM Lab Ref: CED/SOM/501(Page-1/1)  
Test: Tension Test & Bend Test  
Sample Type: Round Bar

Dated: March, 2019  
Dated: 21-03-2019  
Test Specification: ASTM-A 615  
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	0.900	12	12.10	113	115	90.00	99.50	796	783	880	866	47.5	200	23.8	
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**BEND TEST:**

12mm	Sample bend through 180 degrees Satisfactorily without any crack	<b>Note:-  Only One Sample Received and Tested</b>

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

Syed Mustafa Ali  
 Manager Coordination, IZHAR Construction (Pvt) Ltd. Lahore

Test Performed By: Dr. /Engr. Ubaid A Mughal

Client Reference: ICPL/CONST- RPL/19/023

Dated: 21-03-2019

SOM Lab Ref: CED/SOM/277(Page-1/1)

Dated: 21-03-2019

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 <sup>2</sup>	mm <sup>2</sup>	kN	kN	MPa	MPa	MPa	MPa	mm	mm	%	
1	3.820	25	24.90	491	487	257.20	341.00	524	529	695	701	32.5	200	16.3	
2	3.863	25	25.03	491	492	255.50	336.00	521	520	684	683	37.5	200	18.8	
3	2.452	20	19.94	314	312	171.00	214.50	544	548	683	687	30.0	200	15.0	
4	2.420	20	19.81	314	308	162.50	208.20	517	528	663	676	32.5	200	16.3	
5	0.883	12	11.97	113	113	61.20	82.00	541	544	725	729	25.0	200	12.5	
6	0.886	12	11.99	113	113	65.70	84.00	581	582	743	745	25.0	200	12.5	
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**BEND TEST:**

25mm	Sample bend through 180 degrees Satisfactorily without any crack	<b>Note:-</b>  <b>Only Nine Samples Received and Tested</b>
20mm	Sample bend through 180 degrees Satisfactorily without any crack	
12mm	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)

DGM Civil (Line-III)

Test Performed By:

Dr. /Engr.

Numan Khurram

MLCF Iskandarabad, Distt, Mianwali (Civil Works of 7300 TPD New Line-III, MLCFL)

Client Reference: MLCFL/LINE-III/CIVIL/2019/16

Dated: 27-02-2019

SOM Lab Ref: CED/SOM/504(Page-1/2)

Dated: 21-03-2019

Test: Tension and Bend Test

Test Specification:

ASTM-A 615

Sample Type: Deformed Bar( Ittefaq 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 <sup>2</sup>	mm <sup>2</sup>	kN	kN	MPa	MPa	MPa	MPa	mm	mm	%	
1	2.505	20	20.15	314	319	183.50	216.50	584	576	689	679	25.0	200	12.5	
2	2.497	20	20.12	314	318	182.70	219.70	582	575	699	691	25.0	200	12.5	
3	1.587	16	16.04	201	202	124.70	145.00	620	617	721	718	22.5	200	11.3	
4	1.575	16	15.98	201	201	114.50	136.70	569	571	680	682	27.5	200	13.8	
5	0.905	12	12.12	113	115	54.50	80.20	482	473	709	696	27.5	200	13.8	
6	0.907	12	12.13	113	116	53.00	78.20	469	459	691	677	32.5	200	16.3	
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**BEND TEST:**

20mm	Sample bend through 180 degrees Satisfactorily without any crack	<p><b>Note:-</b></p> <p><b>Only Nine Samples Received and Tested</b></p>
16mm	Sample bend through 180 degrees Satisfactorily without any crack	
12mm	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)

DGM Civil (Line-III)

Test Performed By: Dr. /Engr. Numan Khurram

MLCF Iskandarabad, Distt, Mianwali (Civil Works of 7300 TPD New Line-III, MLCFL)

Client Reference: MLCFL/LINE-III/CIVIL/2019/16

Dated: 27-02-2019

SOM Lab Ref: CED/SOM/504(Page-2/2)

Dated: 21-03-2019

Test: Tension and Bend Test

Test Specification: ASTM-A 615

Sample Type: Deformed Bar( Mughal 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 <sup>2</sup>	mm <sup>2</sup>	kN	kN	MPa	MPa	MPa	MPa	mm	mm	%	
1	1.536	16	15.80	201	196	112.00	137.00	557	572	681	699	30.0	200	15.0	
2	1.535	16	15.78	201	196	111.50	136.70	555	571	680	700	30.0	200	15.0	
3	0.881	12	11.96	113	112	62.20	80.70	550	554	714	719	25.0	200	12.5	
4	0.882	12	11.96	113	112	65.70	79.50	581	585	703	708	22.5	200	11.3	
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**BEND TEST:**

16mm	Sample bend through 180 degrees Satisfactorily without any crack	<p><b>Note:-</b></p> <p><b>Only Six Samples Received and Tested</b></p>
12mm	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)

Muhammad Yaseen

Test Performed By: Dr. /Engr. Numan Khurram

Equator Engineering Services, Engineers & Contractors, Chak Shahzad(Site ID: 51896)

Client Reference: Equator/Steel/CMPak/019

Dated: 18-03-2019

SOM Lab Ref: CED/SOM/505(Page-1/1)

Dated: 21-03-2019

Test: Tension and 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 <sup>2</sup>	mm <sup>2</sup>	kN	kN	MPa	MPa	MPa	MPa	mm	mm	%	
1	2.090	20	18.40	314	266	141.50	179.70	450	532	572	676	30.0	200	15.0	
2	2.107	20	18.49	314	268	141.70	179.50	451	529	571	669	30.0	200	15.0	
3	1.008	12	12.79	113	128	80.70	95.20	714	629	842	742	25.0	200	12.5	
4	0.988	12	12.66	113	126	81.70	96.70	722	650	855	769	22.5	200	11.3	
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**BEND TEST:**

20mm	Sample bend through 180 degrees Satisfactorily without any crack	<p><b>Note:-</b></p> <p><b>Only Six Samples Received and Tested</b></p>
12mm	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)

Muhammad Shafiq  
 Engineer's Representative, NESPAK (Pvt) Ltd. Lahore

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

Client Reference: 3957/13/MS/10/171

Dated: 22-03-2019

SOM Lab Ref: CED/SOM/516 (Page-1/1)

Dated: 22-03-2019

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	5.195	27	29.03	573	662	375.60	479.50	656	568	837	725	12.5	50	25.0	
2	5.062	27	28.65	573	645	378.20	496.00	661	587	866	770	12.5	50	25.0	
3	5.192	27	29.02	573	661	376.70	487.20	658	570	851	737	13.8	50	27.5	
4	2.619	20	20.61	314	334	172.70	277.70	550	518	884	833	10.0	50	20.0	
5	8.692	20	37.55	314	1107	172.50	276.50	549	156	880	250	10.0	50	20.0	
6	8.795	20	37.77	314	1120	151.20	224.70	481	135	715	201	10.0	50	20.0	
7	0.902	12	12.09	113	115	87.20	103.70	771	760	917	903	11.3	50	22.5	
8	0.953	12	12.44	113	121	69.20	88.20	612	570	780	727	10.0	50	20.0	
9	0.978	12	12.59	113	125	62.40	84.20	552	501	744	676	10.0	50	20.0	
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**BEND TEST:**

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

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

Muhammad Haseeb Ullah

Test Performed By:

Dr. /Engr.

Bilal A. Khokhar

Site Engineer (LABARD) Lahore Businessmen Association for Rehabilitation of the Disabled

Client Reference: nil

SOM Lab

Ref:

503(Page-1/1)

Dated: 21-03-2019

Dated:

21-03-2019

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 <sup>2</sup>	in <sup>2</sup>	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	2.610	8	0.988	0.79	0.767	23.77	32.77	66370	68360	91490	94240	1.50	8.0	18.8	
2	2.610	8	0.988	0.79	0.767	24.53	33.28	68470	70530	92920	95700	1.50	8.0	18.8	
3	1.445	6	0.736	0.44	0.425	14.09	19.85	70620	73110	99480	102990	1.30	8.0	16.3	
4	1.442	6	0.735	0.44	0.424	12.61	18.22	63210	65590	91310	94750	1.40	8.0	17.5	
5	0.650	4	0.493	0.20	0.191	6.49	8.58	71610	74980	94650	99110	1.10	8.0	13.8	
6	0.649	4	0.493	0.20	0.191	6.27	8.41	69130	72390	92740	97110	1.00	8.0	12.5	
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**BEND TEST:**

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

Abdullah Khadim  
Resident Engineer, DAR Engineering

Test Performed By: Dr. /Engr. Numan Khurram

Client Reference: DB-78/DAR/RE/ME/2019/0187

SOM Lab

Ref: 506(Page-1/1)

Dated: 21-03-2019

Dated: 21-03-2019

Test: Tension Test & Bend Test

Test Specification:

ASTM-A-615

Deformed Bar(Kamran 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 <sup>2</sup>	in <sup>2</sup>	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	2.607	8	0.988	0.79	0.766	23.45	34.93	65460	67510	97530	100580	1.20	8.0	15.0	F-25
2	2.621	8	0.990	0.79	0.770	23.31	34.78	65090	66780	97100	99620	1.30	8.0	16.3	F-25
3	1.440	6	0.734	0.44	0.423	12.86	18.32	64480	67080	91820	95510	1.10	8.0	13.8	P-502
4	1.444	6	0.735	0.44	0.424	12.51	18.20	62700	65060	91210	94650	1.30	8.0	16.3	P-502
5	1.054	5	0.628	0.31	0.310	9.45	13.32	67230	67230	94790	94790	1.50	8.0	18.8	P-317
6	1.058	5	0.629	0.31	0.311	9.58	13.51	68170	67950	96090	95780	1.30	8.0	16.3	P-317
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**BEND TEST:**

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



Engr. Tajammal Farooq  
Resident Engineer (AZE), Sialkot (S F S)

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

Client Reference: RE/SKT -45

SOM Lab

Ref: 507(Page-1/1)

Dated: 05-03-2019

Dated: 21-03-2019

Test: Tension Test & Bend Test

Test Specification:

ASTM-A-615

Deformed Bar(Kamran 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 <sup>2</sup>	in <sup>2</sup>	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	3.318	9	1.114	1.00	0.975	31.06	43.85	68500	70260	96720	99200	1.50	8.0	18.8	
2	3.307	9	1.112	1.00	0.972	29.26	41.79	64530	66380	92180	94830	1.60	8.0	20.0	
3	1.460	6	0.739	0.44	0.429	12.51	18.55	62700	64300	92990	95380	1.40	8.0	17.5	
4	1.488	6	0.746	0.44	0.437	14.64	21.22	73370	73880	106380	107110	1.30	8.0	16.3	
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**BEND TEST:**

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