

Sohail Afzal

Test Performed By:

Dr. /Engr.

S. Asad Ali Gillani

Sr. Project Manager IZHAR GROUP OF COMPANIES, Lahore

Client Reference: ICPL/CONST-DML/20/51

Dated: 08-06-2021

SOM Lab Ref: CED/SOM/4425(Page-1/1)

Dated: 08-06-2021

Test: Tension Test & bend Test

Test Specification: ASTM-A 615

Sample Type: Deformed Bar(Amreli 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	1.572	16	15.96	201	200	104.70	127.00	521	524	632	635	32.5	200	16.3	
2	1.559	16	15.90	201	199	105.70	127.50	526	533	634	642	30.0	200	15.0	
3	0.889	12	12.01	113	113	64.20	76.70	568	568	678	678	25.0	200	12.5	
4	0.875	12	11.92	113	112	61.50	73.50	544	552	650	660	22.5	200	11.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

BEND TEST:

16mm 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 TestedNote: Please always confirm the results of above report on web www.uet-civil.edu.pk

Sohail Afzal

Test Performed By:

Dr. /Engr.

S. Asad Ali Gillani

Sr. Project Manager IZHAR GROUP OF COMPANIES, Lahore

Client Reference: ICPL/CONST-DML/21/50

Dated: 08-06-2021

SOM Lab Ref: CED/SOM/4426(Page-1/1)

Dated: 08-06-2021

Test: Tension Test & 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 ²	mm ²	kN	kN	MPa	MPa	MPa	MPa	mm	mm	%	
1	0.904	12	12.10	113	115	56.20	84.70	497	489	749	737	25.0	200	12.5	
2	0.901	12	12.09	113	115	56.20	85.00	497	490	752	741	27.5	200	13.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

BEND TEST:

12mm 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

DGM Civil(Line-IV)

Test Performed By:

Dr. /Engr.

S. Asad Ali Gillani

MLCF Iskandarabad, Dist. Mianwali

Client Reference: MLCFL/Line-IV/CIVIL/2021/01

Dated: 01-06-2021

SOM Lab Ref: CED/SOM/4428 (Page-1/5)

Dated: 08-06-2021

Test: Tensile Test & 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 ²	mm ²	kN	kN	MPa	MPa	MPa	MPa	mm	mm	%	
1	0.880	12	11.94	113	112	51.00	79.00	451	456	699	706	30.0	200	15.0	444
2	0.895	12	12.05	113	114	52.00	80.20	460	457	709	704	27.5	200	13.8	444
3	0.888	12	12.00	113	113	53.70	80.50	475	475	712	712	25.0	200	12.5	2855
4	0.885	12	11.98	113	113	52.20	80.20	462	464	709	712	30.0	200	15.0	2855
5	0.911	12	12.16	113	116	52.70	81.00	466	455	716	698	32.5	200	16.3	2856
6	0.906	12	12.12	113	115	52.50	80.20	464	455	709	695	30.0	200	15.0	2856
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

BEND TEST:

12mm	Sample bend through 180 degrees Satisfactorily without any crack	Note:- Only Nine Samples Received and Tested
12mm	Sample bend through 180 degrees Satisfactorily without any crack	
12mm	Sample bend through 180 degrees Satisfactorily without any crack	
25mm	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

DGM Civil(Line-IV)

Test Performed By:

Dr. /Engr.

S. Asad Ali Gillani

MLCF Iskandarabad, Dist. Mianwali

Client Reference: MLCFL/Line-IV/CIVIL/2021/01

Dated: 01-06-2021

SOM Lab Ref: CED/SOM/4428 (Page-2/5)

Dated: 08-06-2021

Test: Tensile Test & 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 ²	mm ²	kN	kN	MPa	MPa	MPa	MPa	mm	mm	%	
1	0.890	12	12.00	113	113	58.20	74.70	515	516	660	662	27.5	200	13.8	A-7917
2	0.891	12	12.03	113	114	59.00	75.70	522	520	669	667	25.0	200	12.5	A-7917
3	0.893	12	12.04	113	114	59.20	76.70	523	521	678	675	27.5	200	13.8	B-2670
4	0.906	12	12.12	113	115	66.20	80.50	585	574	712	698	25.0	200	12.5	B-2670
5	0.884	12	11.97	113	113	67.50	83.00	597	600	734	738	27.5	200	13.8	
6	0.883	12	11.97	113	112	67.00	84.20	592	596	744	749	25.0	200	12.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

BEND TEST:

12mm	Sample bend through 180 degrees Satisfactorily without any crack	Note:- Only Nine Samples Received and Tested
12mm	Sample bend through 180 degrees Satisfactorily without any crack	
12mm	Sample bend through 180 degrees Satisfactorily without any crack	
25mm	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

DGM Civil(Line-IV)

Test Performed By:

Dr. /Engr.

S. Asad Ali Gillani

MLCF Iskandarabad, Dist. Mianwali

Client Reference: MLCFL/Line-IV/CIVIL/2021/01

Dated: 01-06-2021

SOM Lab Ref: CED/SOM/4428 (Page-3/5)

Dated: 08-06-2021

Test: Tensile Test & 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 ²	mm ²	kN	kN	MPa	MPa	MPa	MPa	mm	mm	%	
1	1.584	16	16.04	201	202	109.20	139.20	543	541	692	690	35.0	200	17.5	C-9608
2	1.582	16	16.02	201	201	108.20	138.20	538	538	687	686	37.5	200	18.8	C-9608
3	1.548	16	15.84	201	197	110.20	135.20	548	559	672	686	37.5	200	18.8	A-7116
4	1.564	16	15.93	201	199	113.50	138.50	565	570	689	696	32.5	200	16.3	A-7116
5	1.528	16	15.74	201	195	108.70	135.20	541	559	672	695	30.0	200	15.0	
6	1.515	16	15.67	201	193	113.50	137.50	565	589	684	713	30.0	200	15.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

BEND TEST:

16mm	Sample bend through 180 degrees Satisfactorily without any crack	Note:- Only Nine Samples Received and Tested
16mm	Sample bend through 180 degrees Satisfactorily without any crack	
16mm	Sample bend through 180 degrees Satisfactorily without any crack	
25mm	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

DGM Civil(Line-IV)

Test Performed By:

Dr. /Engr.

S. Asad Ali Gillani

MLCF Iskandarabad, Dist. Mianwali

Client Reference: MLCFL/Line-IV/CIVIL/2021/01

Dated: 01-06-2021

SOM Lab Ref: CED/SOM/4428 (Page-4/5)

Dated: 08-06-2021

Test: Tensile Test & 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 ²	mm ²	kN	kN	MPa	MPa	MPa	MPa	mm	mm	%	
1	2.508	20	20.19	314	320	172.20	224.70	548	539	715	703	27.5	200	13.8	B-3750
2	2.513	20	20.19	314	320	171.50	225.00	546	536	716	703	27.5	200	13.8	B-3750
3	2.927	20	21.79	314	373	184.20	235.70	586	495	750	633	30.0	200	15.0	D-2998
4	2.926	20	21.79	314	373	197.50	254.00	629	530	809	682	32.5	200	16.3	D-2998
5	2.431	20	19.86	314	310	161.50	200.00	514	522	637	646	30.0	200	15.0	D-3001
6	2.475	20	20.04	314	315	163.00	205.50	519	517	654	652	32.5	200	16.3	D-3001
7	2.433	20	19.87	314	310	164.00	204.70	522	530	652	661	35.0	200	17.5	
8	2.438	20	19.88	314	311	163.00	204.00	519	525	649	657	32.5	200	16.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

BEND TEST:

20mm	Sample bend through 180 degrees Satisfactorily without any crack	Note:- Only Twelve Samples Received and Tested
20mm	Sample bend through 180 degrees Satisfactorily without any crack	
20mm	Sample bend through 180 degrees Satisfactorily without any crack	
20mm	Sample bend through 180 degrees Satisfactorily without any crack	
25mm	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

DGM Civil(Line-IV)

Test Performed By:

Dr. /Engr.

S. Asad Ali Gillani

MLCF Iskandarabad, Dist. Mianwali

Client Reference: MLCFL/Line-IV/CIVIL/2021/01

Dated: 01-06-2021

SOM Lab Ref: CED/SOM/4428 (Page-5/5)

Dated: 08-06-2021

Test: Tensile Test & 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 ²	mm ²	kN	kN	MPa	MPa	MPa	MPa	mm	mm	%	
1	3.895	25	25.13	491	496	276.20	355.70	563	557	725	718	32.5	200	16.3	B-6233
2	3.912	25	25.19	491	498	272.00	359.00	554	546	731	721	35.0	200	17.5	B-6233
3	3.878	25	25.08	491	494	273.00	348.20	556	553	709	705	35.0	200	17.5	B-6240
4	3.854	25	25.00	491	491	265.00	340.70	540	540	694	694	30.0	200	15.0	B-6240
5	3.987	25	25.43	491	508	271.00	348.70	552	534	710	687	30.0	200	15.0	
6	4.040	25	25.60	491	515	282.20	358.20	575	549	730	697	35.0	200	17.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

BEND TEST:

25mm	Sample bend through 180 degrees Satisfactorily without any crack	Note:- Only Nine Samples Received and Tested
25mm	Sample bend through 180 degrees Satisfactorily without any crack	
25mm	Sample bend through 180 degrees Satisfactorily without any crack	
25mm	Sample bend through 180 degrees Satisfactorily without any crack	
25mm	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

Sub Divisional Officer
Highway Sub Division, Narowal

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

Client Reference: 761/NL

SOM Lab

Ref: 4424(Page-1/1)

Dated: 15-03-2021

Dated: 08-06-2021

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 ²	in ²	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	1.502	6	0.749	0.44	0.441	14.42	18.37	72300	72140	92070	91870	1.10	8.0	13.8	
2	1.501	6	0.749	0.44	0.441	14.07	18.14	70510	70350	90950	90740	1.20	8.0	15.0	
3	0.662	4	0.498	0.20	0.195	7.34	9.25	80940	83010	101960	104570	0.50	8.0	6.3	
4	0.661	4	0.497	0.20	0.194	7.46	9.27	82290	84830	102180	105340	0.60	8.0	7.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

BEND TEST:

# 6	Sample bend through 180 degrees Satisfactorily without any crack	Note:- 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

Engr Mustehsen Ali Khan
 Flag Square Builder, Etihad Town Raiwind Road, Lahore

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

Client Reference: FBS/03/ST

SOM Lab

Ref: 4427 (Page-1/1)

Dated: 08-062021

Dated: 08-06-21021

Test: Tension Test & Bend Test

Test Specification: ASTM-A-615

ASTM-A-615

Gauge Length: 8 inch

Sample Type: Deformed Bar

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 ²	in ²	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	1.578	6	0.769	0.44	0.464	16.46	21.20	82520	78250	106280	100780	1.20	8.0	15.0	
2	1.575	6	0.768	0.44	0.463	16.69	21.76	83640	79490	109090	103670	1.20	8.0	15.0	
3	1.034	5	0.622	0.31	0.304	8.48	12.20	60340	61530	86810	88520	1.40	8.0	17.5	
4	1.029	5	0.620	0.31	0.302	8.33	12.13	59250	60820	86300	88590	1.50	8.0	18.8	
5	0.662	4	0.498	0.20	0.195	6.49	8.58	71610	73440	94650	97080	1.30	8.0	16.3	
6	0.668	4	0.500	0.20	0.196	7.00	8.77	77230	78800	96670	98650	1.00	8.0	12.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

BEND TEST:

# 6	Sample bend through 180 degrees Satisfactorily without any crack	Note:- 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