

Aqeel Haider
TAG Gaso Line Habibabad

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

Client Reference: nil
SOM Lab Ref: CED/SOM/4759(Page-1/1)
Test: Tension Test & Bend Test
Sample Type: Deformed Bar

Dated: 06-08-2021
Dated: 06-08-2021
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 ²	mm ²	kN	kN	MPa	MPa	MPa	MPa	mm	mm	%	
1	2.457	20	19.96	314	313	160.00	211.20	509	512	672	675	30.0	200	15.0	
2	2.463	20	19.99	314	314	159.00	211.00	506	507	672	673	27.5	200	13.8	
3	1.551	16	15.86	201	198	106.70	131.70	531	541	655	667	32.5	200	16.3	
4	1.590	16	16.06	201	203	106.70	130.70	531	527	650	646	32.5	200	16.3	
5	0.857	12	11.79	113	109	64.50	80.00	570	592	707	734	25.0	200	12.5	
6	0.858	12	11.80	113	109	64.20	79.90	568	588	706	731	27.5	200	13.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
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BEND TEST:

20mm	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	
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

Sr. Manager (Civil)
Lucky Cement Limited, Pezu

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

Client Reference: LCL/Civil/Line-2/2021/7/513

Dated: 05-08-2021

SOM Lab Ref: CED/SOM/4761 (Page-1/7)

Dated: 06-08-2021

Test: Tensile Test & Bend Test

Test Specification: ASTM-A-615

Sample Type: Deformed Bar(Naveena 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	4.850	28	28.05	616	618	343.00	426.70	557	556	693	691	30.0	200	15.0	
2	4.898	28	28.19	616	624	341.00	422.50	554	547	686	678	17.5	200	8.8	
3	2.494	20	20.11	314	318	161.00	205.70	512	507	655	648	27.5	200	13.8	
4	2.483	20	20.07	314	316	180.70	217.70	575	572	693	689	17.5	200	8.8	
5	0.881	12	11.95	113	112	67.20	77.70	594	600	687	693	20.0	200	10.0	
6	0.877	12	11.93	113	112	68.00	78.50	601	609	694	703	17.5	200	8.8	
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-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
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-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

BEND TEST:

28mm	Sample bend through 180 degrees Satisfactorily without any crack	Note:- Only Nine Samples Received and Tested
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

Sr. Manager (Civil)
Lucky Cement Limited, Pezu

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

Client Reference: LCL/Civil/Line-2/2021/7/513

Dated: 05-08-2021

SOM Lab Ref: CED/SOM/4761 (Page-2/7)

Dated: 06-08-2021

Test: Tensile Test & Bend Test

Test Specification: ASTM-A-615

Sample Type: Deformed Bar(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	3.900	25	25.16	491	497	218.20	321.50	445	440	655	647	40.0	200	20.0	
2	3.852	25	25.00	491	491	218.70	321.20	446	446	654	655	40.0	200	20.0	
3	3.850	25	24.99	491	490	217.70	321.50	443	444	655	656	37.5	200	18.8	
4	3.870	25	25.06	491	493	219.00	320.50	446	445	653	651	40.0	200	20.0	
5	3.849	25	24.99	491	490	210.50	319.50	429	430	651	652	35.0	200	17.5	
6	3.813	25	24.87	491	486	208.00	325.00	424	429	662	670	42.5	200	21.3	
7	3.894	25	25.13	491	496	210.00	328.70	428	424	670	663	42.5	200	21.3	
8	3.957	25	25.33	491	504	220.70	330.50	450	438	673	656	42.5	200	21.3	
9	3.915	25	25.20	491	499	220.70	331.20	450	443	675	665	40.0	200	20.0	
10	3.873	25	25.06	491	493	220.70	330.20	450	448	673	670	42.5	200	21.3	

BEND TEST:

25mm	Sample bend through 180 degrees Satisfactorily without any crack	Note:- Only Fifteen 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

Sr. Manager (Civil)
Lucky Cement Limited, Pezu

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

Client Reference: LCL/Civil/Line-2/2021/7/513

Dated: 05-08-2021

SOM Lab Ref: CED/SOM/4761 (Page-3/7)

Dated: 06-08-2021

Test: Tensile Test & Bend Test

Test Specification: ASTM-A-615

Sample Type: Deformed Bar(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	3.841	25	24.95	491	489	219.70	320.00	448	450	652	655	37.5	200	18.8	
2	3.831	25	24.93	491	488	219.00	321.20	446	449	654	659	42.5	200	21.3	
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BEND TEST:

25mm	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

Sr. Manager (Civil)
Lucky Cement Limited, Pezu

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

Client Reference: LCL/Civil/Line-2/2021/7/513

Dated: 05-08-2021

SOM Lab Ref: CED/SOM/4761 (Page-4/7)

Dated: 06-08-2021

Test: Tensile Test & Bend Test

Test Specification: ASTM-A-615

Sample Type: Deformed Bar(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	2.215	20	18.95	314	282	129.00	190.50	411	458	606	676	35.0	200	17.5	
2	2.205	20	18.91	314	281	128.00	189.50	407	456	603	675	37.5	200	18.8	
3	2.223	20	18.99	314	283	139.20	191.00	443	492	608	675	35.0	200	17.5	
4	2.224	20	18.99	314	283	135.00	189.00	430	477	602	667	35.0	200	17.5	
5	2.087	20	18.40	314	266	130.00	178.20	414	489	567	671	35.0	200	17.5	
6	2.152	20	18.68	314	274	130.50	179.00	415	477	570	653	35.0	200	17.5	
7	2.457	20	19.96	314	313	139.50	190.70	444	446	607	610	35.0	200	17.5	
8	2.451	20	19.94	314	312	141.00	204.20	449	452	650	654	37.5	200	18.8	
9	2.467	20	20.00	314	314	140.70	203.50	448	448	648	648	42.5	200	21.3	
10	2.461	20	19.98	314	314	176.70	221.50	562	564	705	707	37.5	200	18.8	

BEND TEST:

20mm	Sample bend through 180 degrees Satisfactorily without any crack	Note:- Only Fifteen 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	
20mm	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

Sr. Manager (Civil)
Lucky Cement Limited, Pezu

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

Client Reference: LCL/Civil/Line-2/2021/7/513

Dated: 05-08-2021

SOM Lab Ref: CED/SOM/4761 (Page-5/7)

Dated: 06-08-2021

Test: Tensile Test & Bend Test

Test Specification: ASTM-A-615

Sample Type: Deformed Bar(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	1.579	16	16.00	201	201	95.50	137.20	475	476	682	683	40.0	200	20.0	
2	1.559	16	15.90	201	199	96.00	137.00	477	484	681	690	25.0	200	12.5	
3	1.560	16	15.91	201	199	96.20	137.50	478	485	684	693	40.0	200	20.0	
4	1.573	16	15.97	201	200	95.70	136.00	476	478	676	679	42.5	200	21.3	
5	1.576	16	15.99	201	201	95.00	137.70	472	474	685	687	40.0	200	20.0	
6	1.582	16	16.02	201	202	95.50	138.50	475	474	689	688	42.5	200	21.3	
7	1.582	16	16.02	201	201	94.50	137.00	470	470	681	680	45.0	200	22.5	
8	1.577	16	15.99	201	201	95.20	137.70	473	474	685	686	42.5	200	21.3	
9	1.597	16	16.09	201	203	94.70	134.20	471	466	667	660	42.5	200	21.3	
10	1.585	16	16.03	201	202	94.00	134.00	468	466	666	664	42.5	200	21.3	

BEND TEST:

20mm	Sample bend through 180 degrees Satisfactorily without any crack	Note:- Only Fifteen 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	
20mm	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

Sr. Manager (Civil)
Lucky Cement Limited, Pezu

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

Client Reference: LCL/Civil/Line-2/2021/7/513

Dated: 05-08-2021

SOM Lab Ref: CED/SOM/4761 (Page-6/7)

Dated: 06-08-2021

Test: Tensile Test & Bend Test

Test Specification: ASTM-A-615

Sample Type: Deformed Bar(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	1.578	16	16.00	201	201	94.70	132.70	471	472	660	661	40.0	200	20.0	
2	1.590	16	16.06	201	203	95.20	132.70	473	471	660	656	37.5	200	18.8	
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-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

BEND TEST:

20mm	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

Sr. Manager (Civil)
Lucky Cement Limited, Pezu

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

Client Reference: LCL/Civil/Line-2/2021/7/513

Dated: 05-08-2021

SOM Lab Ref: CED/SOM/4761 (Page-7/7)

Dated: 06-08-2021

Test: Tensile Test & Bend Test

Test Specification: ASTM-A-615

Sample Type: Deformed Bar(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	0.886	12	12.00	113	113	49.70	76.00	439	440	672	673	37.5	200	18.8	
2	0.883	12	11.97	113	112	50.20	76.20	444	447	674	678	37.5	200	18.8	
3	0.882	12	11.96	113	112	49.50	75.70	438	441	669	674	35.0	200	17.5	
4	0.885	12	11.98	113	113	49.70	75.50	439	441	668	670	37.5	200	18.8	
5	0.995	12	12.70	113	127	50.00	76.20	442	395	674	602	37.5	200	18.8	
6	1.005	12	12.77	113	128	63.20	84.00	559	494	743	657	32.5	200	16.3	
7	0.888	12	12.00	113	113	56.70	87.50	501	502	774	774	37.5	200	18.8	
8	0.886	12	11.99	113	113	50.50	76.00	447	448	672	674	40.0	200	20.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

BEND TEST:

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

Abid Maan

Test Performed By:

Dr. /Engr. S. Asad Ali Gillani

Project Manager, One Liberty, Noor Jahan Road, Gulberg III, Lahore

Client Reference: OL/2021/08/06

SOM Lab Ref: 4760(Page-1/1)

Dated: 06-08-2021

Dated: 06-08-2021

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	2.656	8	0.997	0.79	0.781	17.66	31.24	49290	49860	87230	88230	1.60	8.0	20.0	
2	2.632	8	0.992	0.79	0.773	18.35	31.55	51230	52350	88080	90020	1.00	8.0	12.5	
3	1.494	6	0.748	0.44	0.439	11.01	18.81	55190	55310	94270	94490	1.40	8.0	17.5	
4	1.521	6	0.754	0.44	0.447	11.16	18.98	55950	55080	95140	93650	1.50	8.0	18.8	
5	0.663	4	0.498	0.20	0.195	5.02	7.51	55310	56730	82850	84970	1.10	8.0	13.8	
6	0.662	4	0.498	0.20	0.195	4.91	7.59	54180	55570	83750	85890	1.10	8.0	13.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

BEND TEST:

# 8	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

Arsalan Anjum
Assistant Project Director, PMU-SBP Sahiwal

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

Client Reference: APD/PMU/SBP/SWL/21/200

SOM Lab Ref: 4762(Page-1/1)

Dated: 02-08-2021

Dated: 06-08-2021

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	2.615	8	0.989	0.79	0.768	29.00	34.17	80960	83280	95390	98120	1.40	8.0	17.5	
2	2.604	8	0.987	0.79	0.765	29.07	34.15	81160	83820	95340	98450	1.50	8.0	18.8	
3	1.497	6	0.748	0.44	0.440	15.75	18.60	78940	78940	93250	93250	1.30	8.0	16.3	
4	1.503	6	0.750	0.44	0.442	15.72	18.57	78790	78430	93100	92680	1.40	8.0	17.5	
5	0.519	4	0.441	0.20	0.153	6.63	7.65	73070	95510	84310	110210	1.20	8.0	15.0	
6	0.522	4	0.441	0.20	0.153	6.70	7.75	73850	96540	85430	111670	1.00	8.0	12.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

BEND TEST:

# 8	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