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

Deputy CRE, Zeeruk International (Pvt) Ltd. Lahore Sialkot Motorway Project

Client Reference: LSMP/DCR/2019/1224 **Dated:** 22-11-2019

SOM Lab Ref: CED/SOM/1773(Page-1/1) **Dated:** 22-11-2019

Test: Tension Test & Bend Test **Test Specification:** ASTM-F-1554

Sample Type: Anchor 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^2	mm^2	kN	kN	MPa	MPa	MPa	MPa	mm	mm	%	
1	3.964	25	25.36	491	505	166.00	249.50	338	329	508	495	62.5	200	31.3	
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BEND TEST:

--	No Bend test performed

Note:-

Only One Sample Received and Tested

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

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

Resident Engineer, Project Management Department, Al-Imam Enterprises (Pvt) Ltd Lahore

Client Reference: Al-Imam/746/PS-1/DHA/LHE/1000 **Dated:** 13-11-2019

SOM Lab Ref: CED/SOM/1769(Page-1/1) **Dated:** 22-11-2019

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

Sample Type: Deformed Steel Bar(SJ 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	0.898	12	12.05	113	114	59.70	83.90	528	524	742	736	35.0	200	17.5	
2	0.964	12	12.50	113	123	59.50	84.00	526	485	743	685	37.5	200	18.8	
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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

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

Resident Engineer, Project Management Department, Al-Imam Enterprises (Pvt) Ltd Lahore

Client Reference: Al-Imam/746/PS-1/DHA/LHE/1005 **Dated:** 20-11-2019

SOM Lab Ref: CED/SOM/1769(Page-2/3) **Dated:** 22-11-2019

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	3.878	25	25.08	491	494	228.70	313.20	466	463	638	635	40.0	200	20.0	
2	3.818	25	24.89	491	486	234.00	316.00	477	482	644	650	37.5	200	18.8	
3	2.454	20	19.95	314	313	173.00	219.70	551	554	699	703	37.5	200	18.8	
4	2.434	20	19.87	314	310	168.90	217.70	538	545	693	702	32.5	200	16.3	
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BEND TEST:

25mm	Sample bend through 180 degrees Satisfactorily without any crack
20mm	Sample bend through 180 degrees Satisfactorily without any crack

Note:-

Only Six Samples Received and Tested

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

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

Resident Engineer, Project Management Department, Al-Imam Enterprises (Pvt) Ltd Lahore

Client Reference: Al-Imam/746/PS-1/DHA/LHE/1006 **Dated:** 20-11-2019

SOM Lab Ref: CED/SOM/1769(Page-3/3) **Dated:** 22-11-2019

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

Sample Type: Deformed Steel Bar(Kamran 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	0.988	12	12.67	113	126	70.50	83.50	623	560	738	663	25.0	200	12.5	
2	0.972	12	12.56	113	124	72.00	89.00	637	582	787	719	27.5	200	13.8	
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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

Maj Adnan khalid®

Test Performed By: **Dr. /Engr.** M Rehan Ashraf

Dy Dir MTL, Proposed Commercial Plaza, DRGCC Ph-III, DHA Ph-VI, (M/S Construct)

Client Reference: 408/241/E/Lab/766/4140

Dated: 19-11-2019

SOM Lab Ref: 1760(Page-1/1)

Dated: 20-11-2019

Test: Tension Test & Bend Test

Test Specification: ASTM-A-615

Gauge Length: 8 inch

Sample Type: Deformed Bar (Kamran 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	1.477	6	0.743	0.44	0.434	12.71	18.57	63720	64600	93100	94380	1.50	8.0	18.8	
2	1.482	6	0.745	0.44	0.436	13.30	18.83	66680	67290	94370	95240	1.40	8.0	17.5	
3	0.660	4	0.497	0.20	0.194	6.42	8.84	70820	73010	97460	100470	1.50	8.0	18.8	
4	0.665	4	0.498	0.20	0.195	6.49	8.89	71610	73440	98020	100530	1.50	8.0	18.8	
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BEND TEST:

# 6	Sample bend through 180 degrees Satisfactorily without any crack
# 4	Sample bend through 180 degrees Satisfactorily without any crack

Note:-

Only Six Samples Received and Tested

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

Maj Adnan khalid®

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

Dy Dir MTL, Proposed Commercial Plaza, DRGCC Ph-III, DHA Ph-VI, (M/S Construct)

Client Reference: 408/241/E/Lab/769/4147

Dated: 21-11-2019

SOM Lab Ref: 1770(Page-1/1)

Dated: 22-11-2019

Test: Tension Test & Bend Test

Test Specification: ASTM-A-615

Gauge Length: 8 inch

Sample Type: Deformed Bar (Kamran 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	1.486	6	0.746	0.44	0.437	13.40	18.93	67190	67650	94880	95540	1.30	8.0	16.3	
2	1.486	6	0.746	0.44	0.437	12.95	18.76	64890	65340	94020	94660	1.40	8.0	17.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
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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