

Arfan ul Haq

Test Performed By:

Dr. /Engr.

Nauman Khurram

Resident Engineer, CPEC - Package-3, FWO Camp Bani Afghan Miawali

Client Reference: CPEC/NESPAK/CS/RE/PKG3/19/1089

Dated: 30-07-2019

SOM Lab Ref: CED/SOM/1222(Page-1/2)

Dated: 01-08-2019

Test: Tension 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	2.202	20	18.92	314	281	140.70	180.20	448	501	574	642	30.0	200	15.0	
2	2.204	20	18.91	314	281	140.50	180.50	447	501	575	643	30.0	200	15.0	
3	0.996	12	12.71	113	127	69.70	85.70	616	550	758	676	25.0	200	12.5	
4	0.976	12	12.58	113	124	66.70	80.50	590	537	712	648	30.0	200	15.0	
5	1.000	12	12.74	113	127	68.70	85.20	607	540	753	669	27.5	200	13.8	
6	0.972	12	12.56	113	124	66.50	80.70	588	537	714	652	30.0	200	15.0	
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BEND TEST:

20mm	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	

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

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Client Reference: CPEC/NESPAK/CS/RE/PKG3/19/1089

Dated: 30-07-2019

SOM Lab Ref: CED/SOM/1222(Page-2/2)

Dated: 01-08-2019

Test: Tension Test & Bend Test

Test Specification: ASTM-A 615

Sample Type: Deformed Bar(Nomi 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	3.802	25	24.82	491	484	256.00	321.70	522	529	655	665	35.0	200	17.5	
2	3.812	25	24.87	491	486	253.00	320.20	515	521	652	660	25.0	200	12.5	
3	0.889	12	12.01	113	113	55.70	87.50	492	492	774	773	25.0	200	12.5	
4	0.895	12	12.05	113	114	56.00	87.70	495	491	775	769	25.0	200	12.5	
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BEND TEST:

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

M. Faisal Asghar
Lahore

Test Performed By: Dr. /Engr. Nauman Khurram

Client Reference: nil

Dated: 01-08-2019

Test: Tension Test & Bend Test

Gauge Length: 8 inch

Test Specification:

Sample Type:

SOM Lab

Ref: 1225(P-1/1)

Dated: 01-08-2019

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 ²	in ²	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	1.417	6	0.728	0.44	0.416	15.04	19.49	75370	79710	97690	103330	1.00	8.0	12.5	
2	0.657	4	0.496	0.20	0.193	6.80	8.74	74980	77700	96340	99830	1.20	8.0	15.0	
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BEND TEST:

# 6	Sample bend through 180 degrees Satisfactorily without any crack	Note:- Only Four 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 Imran Zahid
A. Senior Engineer University of Education, Lahore

Test Performed By: Dr. /Engr. Nauman Khurram

Client Reference: UE/Engg/CE/2019/453

Dated: 01-08-2019

Test: Tension Test & Bend Test

Gauge Length: 8 inch

Test Specification:

Sample Type:

SOM Lab

Ref: 1226(Page-1/1)

Dated: 01-08-2019

ASTM-A-615

Deformed Bar(Mughal 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	1.487	6	0.746	0.44	0.437	14.50	18.40	72660	73160	92230	92860	1.00	8.0	12.5	
2	1.482	6	0.745	0.44	0.436	14.29	18.42	71640	72290	92330	93180	1.40	8.0	17.5	
3	0.635	4	0.488	0.20	0.187	6.68	8.28	73630	78750	91280	97620	1.10	8.0	13.8	
4	0.666	4	0.500	0.20	0.196	7.56	8.82	83410	85110	97230	99220	1.00	8.0	12.5	
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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