

Muhammad Khalid Zaman

Test Performed By:

Dr. /Engr. Nauman Khurram

Resident Engineer, Engineering Consultancy Services Punjab (Pvt) Ltd. Lahore

Client Reference: ECSP/PAPA/CZ-FSD-20

SOM Lab Ref: 4947(Page-1/1

Dated: 08-09-2021

Dated: 09-09-2021

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	0.660	4	0.497	0.20	0.194	6.93	8.89	76440	78800	98020	101050	1.00	8.0	12.5	
2	0.657	4	0.496	0.20	0.193	7.05	8.99	77790	80610	99150	102740	1.00	8.0	12.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

BEND TEST:

# 4	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

Kamran Khalid
Pr. Engineer 9Civil), WASO PAEC, Chashma

Test Performed By: Dr. /Engr. Nauman Khurram

Client Reference: PD(CH)WASO/PNPFC/11/19/1613

SOM Lab Ref: 4948(Page-1/1)

Dated: 08-09-2021

Dated: 09-09-2021

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	13.00	19.32	65150	65000	96830	96610	1.30	8.0	16.3	
2	1.510	6	0.752	0.44	0.444	13.12	19.54	65760	65170	97950	97070	1.60	8.0	20.0	
3	0.600	4	0.473	0.20	0.176	5.73	8.02	63180	71790	88470	100530	1.30	8.0	16.3	
4	0.600	4	0.473	0.20	0.176	5.78	8.23	63740	72430	90720	103090	1.30	8.0	16.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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

Muhammad Saleem
Project Director (North-3) WASO (PAEC),

Test Performed By: Dr. /Engr. Nauman Khurram

Client Reference: WASO/CNPGS-21-188

SOM Lab Ref: 4949(Page-1/1)

Dated: 07-09-2021

Dated: 09-09-2021

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	2.652	8	0.996	0.79	0.779	24.52	34.81	68440	69410	97190	98560	1.60	8.0	20.0	
2	2.653	8	0.997	0.79	0.780	24.64	34.98	68790	69670	97670	98920	1.40	8.0	17.5	
3	1.507	6	0.751	0.44	0.443	13.35	19.42	66940	66480	97340	96680	1.40	8.0	17.5	
4	1.507	6	0.751	0.44	0.443	13.27	19.34	66530	66080	96930	96270	1.50	8.0	18.8	
5	1.040	5	0.624	0.31	0.306	9.58	14.70	68170	69060	104580	105940	1.50	8.0	18.8	
6	1.039	5	0.623	0.31	0.305	9.58	14.68	68170	69290	104430	106140	1.40	8.0	17.5	
7	0.607	4	0.476	0.20	0.178	5.83	8.07	64300	72250	89030	100030	1.40	8.0	17.5	
8	0.601	4	0.475	0.20	0.177	5.81	8.15	64080	72400	89930	101610	1.30	8.0	16.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

BEND TEST:

# 8	Sample bend through 180 degrees Satisfactorily without any crack	Note:- Only Twelve Samples Received and Tested
# 6	Sample bend through 180 degrees Satisfactorily without any crack	
# 5	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

Tahir Mehmood
Chief Engineer, New Lahore City

Test Performed By: Dr. /Engr. Nauman Khurram

Client Reference: NLC/CE/Infra/084

SOM Lab Ref: 1950 (Page-1/1)

Dated: 31-08-2021

Dated: 09-09-2021

Test: Tension Test & Bend test

Test Specification: ASTM-A-615

Gauge Length: 8 inch

Sample Type: Deformed(AFCO Steel)

ASTM-A-615

Deformed(AFCO 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	1.082	5	0.636	0.31	0.318	9.07	11.93	64550	62920	84850	82720	1.50	8.0	18.8	
2	0.671	4	0.501	0.20	0.197	6.27	8.43	69130	70190	92960	94380	1.20	8.0	15.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

BEND TEST:

# 5	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