Muhammad Shahbad ahmed **Test Performed By:** Dr. /Engr. Bilal A Khokhar

Resident Engineer, Zeeruk International Pvt Ltd. Lhr. Eastern Bypass Project

Client Reference: ZI/LEBP/RE/2019/229 Dated: 19-03-2019 **SOM Lab Ref:** CED/SOM/508 (Page-2/2) Dated: 21-03-2019 **Test Specification:** Test: Tension Test & Bend Test ASTM-A-615

Sample Type: Deformed Bar(Ittefaq Steel) Gauge Length: 200 mm

		D	ia.	Ar	ea	Yield	Ultimate	Yield	Stress	Ult. S	Stress			_	
S.No.	Weight	Nominal	Calculated	Nominal	Calculated	Load	Load	(according to nominal area)	(according to measured area)	(according to nominal area)	(according to measured area)	Elongation	Gauge Length	%age Elongation	Remarks
	kg/m	mm	mm	mm ²	mm ²	kN	kN	MPa	MPa	MPa	MPa	mm	mm	%	
1	1.593	16	16.08	201	203	100.70	128.70	501	497	640	634	25.0	200	12.5	
2	1.570	16	15.96	201	200	120.00	144.00	597	600	716	720	27.5	200	13.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
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BEND TEST:

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

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

Al-Karam Paper Mill (Pvt) Ltd. Sheikhupura

SOM Lab 2081(Page-

1/1) **Client Reference:** Ref: nil Dated: 21-01-2020 Dated: 15-01-2020

Test Specification: Tension Test & Bend Test Test: ASTM-A-615 **Guage Length:** 8 inch

Sample Type: **Deformed Bar**

		D	ia.	Α	rea	Yield	Ultimate	Yield	Stress	Ult. S	Stress			L	
S.No.	Weight	Nominal	Calculated	Nominal	Calculated	Load	Load	(according to nominal area)	(according to measured area)	(according to nominal area)	(according to measured area)	Elongation	Gauge Length	%age Elongation	Remarks
	lb/ft	#	in	in ²	in ²	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	1.484	6	0.745	0.44	0.436	15.34	18.83	76900	77610	94370	95240	1.40	8.0	17.5	
2	1.475	6	0.743	0.44	0.433	14.58	18.55	73070	74250	92990	94500	1.50	8.0	18.8	
3	1.031	5	0.621	0.31	0.303	12.74	15.62	90650	92750	111100	113670	1.10	8.0	13.8	
4	1.048	5	0.626	0.31	0.308	12.54	15.39	89200	89780	109510	110220	1.00	8.0	12.5	
5	0.666	4	0.500	0.20	0.196	7.00	9.14	77230	78800	100830	102890	1.20	8.0	15.0	
6	0.669	4	0.501	0.20	0.197	7.05	9.19	77790	78970	101390	102940	1.20	8.0	15.0	
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						-			-		_				

BEND TEST:

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

Construction Manager, NESPAK (Pvt) Ltd. Lahore **Test Performed By:**

Dr. /Engr.

S. Asad Ali Gillani

SOM Lab

Client Reference: 3796/13/MHK/01/02 Ref: Dated: 2082(Page-1/1)

21-01-2020 Dated:

Gauge Length:

21-01-2020

Test:

Tension Test & Bend Test 8 inch

Test Specification: ASTM-A-615 Sample Type:

Deformed Bar

Elongation	Length	ngatio	Ŋ
Ш	Gauge	%age Elongation	Remarks
in	in	%	
1.10	8.0	13.8	
1.10	8.0	13.8	
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-	-	-	
-	-	-	
-	-	-	
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-	-	-	
-	-	-	
	in 1.10 1.10 - - - -	in in 1.10 8.0 1.10 8.0	in in % 1.10 8.0 13.8 1.10 8.0 13.8

Witnessed By: Abdul Rauf, HCS

BEND TEST:

# 4	Sample bend through 180 degrees Satisfactorily without any crack	Note:-
		Only Three Samples
		Received and Tested

S. Asad Ali

Maj Adnan khalid® Test Performed By: Dr. /Engr. Gillani

Dy Dir MTL, Infra Dev Works of Prism -IX, Pkg-II, III & IV DHA- IX - (M/S NLC)

SOM Lab

 Client Reference:
 408/241/E/Lab/825/1955
 Ref:
 2083(Page-1/1)

 Dated:
 20-01-2020
 Dated:
 021-01-2020

Test: Tension Test & Bend Test Test Specification: ASTM-A-615

Gauge Length: 8 inch Sample Type: Deformed Bar (S. J. Steel)

		D	ia.	A	rea	Yield	Ultimate	Yield	Stress	Ult. S	Stress			L	
S.No.	Weight	Nominal	Calculated	Nominal	Calculated	Load	Load	(according to nominal area)	(according to measured area)	(according to nominal area)	(according to measured area)	Elongation	Gauge Length	%age Elongation	Remarks
	lb/ft	#	in	in ²	in ²	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	0.677	4	0.503	0.20	0.199	6.29	8.94	69360	69710	98580	99080	1.10	8.0	13.8	
2	0.674	4	0.502	0.20	0.198	6.27	8.94	69130	69830	98580	99580	1.10	8.0	13.8	
3	0.674	4	0.502	0.20	0.198	6.29	8.94	69360	70060	98580	99580	1.20	8.0	15.0	
4	0.677	4	0.503	0.20	0.199	6.37	9.04	70260	70610	99710	100210	1.10	8.0	13.8	
5	0.669	4	0.501	0.20	0.197	6.24	8.84	68800	69840	97460	98940	1.30	8.0	16.3	
6	0.665	4	0.498	0.20	0.195	6.22	8.84	68570	70330	97460	99960	1.20	8.0	15.0	
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-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	1	1	1	1	-	-	1	1	-	-	-	-	-	
-	-	1	1	1	1	-	-	-	1	-	-	-	-	-	
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BEND TEST:

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

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

SQN LDR, GE (AIR) Rafiqui

20-01-2020

Client Reference:

Dated:

SOM Lab 2084 (Page-

6000-Test/E-6 Ref: 1/1)

Dated: 21-01-2020

Test: Tension Test & Bend Test Test Specification: ASTM-A-615

Guage Length: 8 inch Sample Type: Deformed Bar

		D	ia.	А	rea	Yield	Ultimate	Yield	Stress	Ult. S	tress			L	
S.No.	Weight	Nominal	Calculated	Nominal	Calculated	Load	Load	(according to nominal area)	(according to measured area)	(according to nominal area)	(according to measured area)	Elongation	Gauge Length	%age Elongation	Remarks
	lb/ft	#	in	in ²	in ²	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	0.521	4	0.441	0.20	0.153	4.35	6.39	48000	62750	70480	92130	1.00	8.0	12.5	
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BEND TEST:

# 4	Sample bend through 180 degrees Satisfactorily without any crack	Note:-
		Only Two Samples
		Received and Tested

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

SQN LDR, GE (AIR) Rafiqui

20-01-2020

Client Reference:

Dated:

SOM Lab 2084 (Page-

6000-Test/11/E-6 Ref: 1/1)

Dated: 21-01-2020

Test: Tension Test & Bend Test Test Specification: ASTM-A-615

Guage Length: 8 inch Sample Type: Deformed Bar

		D	ia.	A	rea	Yield	Ultimate	Yield	Stress	Ult. S	tress			Ē	
S.No.	Weight	Nominal	Calculated	Nominal	Calculated	Load	Load	(according to nominal area)	(according to measured area)	(according to nominal area)	(according to measured area)	Elongation	Gauge Length	%age Elongation	Remarks
	lb/ft	#	in	in ²	in ²	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	0.521	4	0.441	0.20	0.153	4.35	6.39	48000	62750	70480	92130	1.00	8.0	12.5	
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-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
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BEND TEST:

# 4	Sample bend through 180 degrees Satisfactorily without any crack	Note:-
		Only Two Samples
		Received and Tested
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Engr. Muhammad Adeem **Test Performed By:** Dr. /Engr. S. Asad Ali Gillani GH. Sons Engineering Company, (Construction of MLRS Repair WKSP Shed CA No. ENC-A-176/2018)

Client Reference: Sample for Testing in Lab SOM Lab Ref: 2085(Page-1-1)

Dated: 21-01-2020 **Dated:** 21-01-2020

Test:Tension TestTest Specification:ASTM-A-615Gauge Length:8 inchSample Type:Deformed Bar

	Weight	Dia.		Area		Yield	Ultimate	Yield Stress		Ult. Stress				_	
S.No.		Nominal	Calculated	Nominal	Calculated	Load	Load	(according to nominal area)	(according to measured area)	(according to nominal area)	(according to measured area)	Elongation	Gauge Length	%age Elongation	Remarks
	lb/ft	#	in	in ²	in ²	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	0.655	4	0.494	0.20	0.192	7.29	9.02	80370	83720	99480	103630	1.20	8.0	15.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
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<u> </u>															

BEND TEST:

	No Bend test performed	Note:-				
		Only One Sample Received and Tested				
Note: Pleas	se always confirm the results of above report on web www.uet-civil.edu.pk					

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

Deputy Director (QCD), WASA, LDA, Lahore

11-01-2020

Client Reference:

Dated:

SOM Lab 2086(Page-

QCD/ 84-85 Ref: 1/1)

Dated: 21-01-2020

Test:Tension Test & Bend TestTest Specification:ASTM-A-615Guage Length:8 inchSample Type:Deformed Bar

		Dia.		Area		Yield	Ultimate	Yield Stress		Ult. Stress				Ľ	
S.No.	Weight	Nominal	Calculated	Nominal	Calculated	Load	Load	(according to nominal area)	(according to measured area)	(according to nominal area)	(according to measured area)	Elongation	Gauge Length	%age Elongation	Remarks
	lb/ft	#	in	in ²	in ²	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	0.535	4	0.447	0.20	0.157	4.03	6.70	44400	56570	73850	94080	1.20	8.0	15.0	
2	0.562	4	0.458	0.20	0.165	4.30	6.78	47440	57500	74750	90610	1.20	8.0	15.0	
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-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
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-	-	1	-	-	-	1	-	-	-	-	-	-	-	-	_
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BEND TEST:

# 4	Sample bend through 180 degrees Satisfactorily without any crack	Note:-
# 4	Sample bend through 180 degrees Satisfactorily without any crack	
		Only Four Samples
		Received and Tested