Muhammad Hayat Anjum **Test Performed By:** Act. Director (Civil) KCI,

Dr. /Engr.

M. Rizwan Riaz

**SOM Lab** 

**Client Reference:** nil Ref: Dated: 2966(Page-1/2)

Dated: 17-09-2020

18-09-2020

Tension Test & Bend Test Test: Gauge Length: 8 inch

**Test Specification:** 

ASTM-A-615

Sample Type: **Deformed Bar** 

		D	ia.	Α	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 <sup>2</sup>	in <sup>2</sup>	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	0.660	4	0.497	0.20	0.194	6.22	8.66	68570	70690	95550	98500	1.40	8.0	17.5	(B)
2	0.659	4	0.497	0.20	0.194	6.17	8.66	68010	70110	95550	98500	1.40	8.0	17.5	(B)
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	

# **BEND TEST:**

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

Muhammad Hayat Anjum **Test Performed By:** Act. Director (Civil) KCI,

Dr. /Engr.

M. Rizwan Riaz

**SOM Lab** 

**Client Reference:** nil Ref: Dated: 2966(Page-1/2)

Dated: 17-09-2020

18-09-2020

Tension Test & Bend Test Test: Gauge Length: 8 inch

**Test Specification:** 

ASTM-A-615

Sample Type: **Deformed Bar** 

		D	ia.	Α	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 <sup>2</sup>	in <sup>2</sup>	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	0.660	4	0.497	0.20	0.194	6.22	8.66	68570	70690	95550	98500	1.40	8.0	17.5	(B)
2	0.659	4	0.497	0.20	0.194	6.17	8.66	68010	70110	95550	98500	1.40	8.0	17.5	(B)
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
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-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	

# **BEND TEST:**

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

Muhammad Hayat Anjum Test Performed By:
Act. Director ( Civil ) KCI,

nil

Dr. /Engr.

M. Rizwan Riaz

SOM Lab

**Ref:** 2966(Page-2/2)

**Dated:** 17-09-2020

**Client Reference:** 

**Dated:** 18-09-2020

Test:Tension Test & Bend TestTest Specification:ASTM-A-615Gauge Length:8 inchSample 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 <sup>2</sup>	in <sup>2</sup>	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	0.645	4	0.492	0.20	0.190	6.19	8.58	68230	71830	94650	99630	1.40	8.0	17.5	(A)
2	0.644	4	0.491	0.20	0.189	6.09	8.66	67110	71020	95550	101110	1.10	8.0	13.8	(A)
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
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# **BEND TEST:**

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

Muhammad Hayat Anjum Test Performed By:
Act. Director ( Civil ) KCI,

nil

Dr. /Engr.

M. Rizwan Riaz

SOM Lab

**Ref:** 2966(Page-2/2)

**Dated:** 17-09-2020

**Client Reference:** 

**Dated:** 18-09-2020

Test:Tension Test & Bend TestTest Specification:ASTM-A-615Gauge Length:8 inchSample 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 <sup>2</sup>	in <sup>2</sup>	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	0.645	4	0.492	0.20	0.190	6.19	8.58	68230	71830	94650	99630	1.40	8.0	17.5	(A)
2	0.644	4	0.491	0.20	0.189	6.09	8.66	67110	71020	95550	101110	1.10	8.0	13.8	(A)
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
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# **BEND TEST:**

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

Naeem Yousaf Test Performed By: Dr. /Engr. Gillani

Resident Engineer, NESPAK, (Pvt) Ltd. (Const: of DHA Office Complex, DHA Bahawalpur)

**SOM Lab** 

 Client Reference:
 4401/NY/05/32
 Ref:
 2967(Page-1/1)

**Dated:** 16-09-2020 **Dated:** 18-09-2020

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

Gauge Length: 8 inch Sample Type: Deformed Bar Kamran Steel

		D	ia.	A	rea	Yield	Ultimate	Yield	Stress	Ult. S	Stress			n	
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 <sup>2</sup>	in <sup>2</sup>	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	2.642	8	0.994	0.79	0.776	25.99	35.39	72570	73880	98810	100590	1.10	8.0	13.8	
2	2.638	8	0.993	0.79	0.775	26.66	35.98	74420	75860	100460	102400	1.20	8.0	15.0	
3	1.485	6	0.745	0.44	0.436	13.58	18.76	68060	68690	94020	94880	1.20	8.0	15.0	
4	1.485	6	0.745	0.44	0.436	13.25	18.65	66430	67040	93510	94360	1.30	8.0	16.3	
5	0.662	4	0.498	0.20	0.195	6.29	8.36	69360	71140	92180	94540	1.30	8.0	16.3	
6	0.663	4	0.498	0.20	0.195	6.34	8.58	69920	71710	94650	97080	1.10	8.0	13.8	
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Wit	Witnessed By:				shif									'	

Witnessed By: M. Kashif

# **BEND TEST:**

# 8	Sample bend through 180 degrees Satisfactorily without any crack	Note:-
# 6	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

Naeem Yousaf Test Performed By: Dr. /Engr. Gillani

Resident Engineer, NESPAK, (Pvt) Ltd. (Const: of DHA Office Complex, DHA Bahawalpur)

**SOM Lab** 

 Client Reference:
 4401/NY/05/32
 Ref:
 2967(Page-1/1)

**Dated:** 16-09-2020 **Dated:** 18-09-2020

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

Gauge Length: 8 inch Sample Type: Deformed Bar Kamran Steel

		D	ia.	A	rea	Yield	Ultimate	Yield	Stress	Ult. S	Stress			n	
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 <sup>2</sup>	in <sup>2</sup>	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	2.642	8	0.994	0.79	0.776	25.99	35.39	72570	73880	98810	100590	1.10	8.0	13.8	
2	2.638	8	0.993	0.79	0.775	26.66	35.98	74420	75860	100460	102400	1.20	8.0	15.0	
3	1.485	6	0.745	0.44	0.436	13.58	18.76	68060	68690	94020	94880	1.20	8.0	15.0	
4	1.485	6	0.745	0.44	0.436	13.25	18.65	66430	67040	93510	94360	1.30	8.0	16.3	
5	0.662	4	0.498	0.20	0.195	6.29	8.36	69360	71140	92180	94540	1.30	8.0	16.3	
6	0.663	4	0.498	0.20	0.195	6.34	8.58	69920	71710	94650	97080	1.10	8.0	13.8	
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Wit	Witnessed By:				shif									'	

Witnessed By: M. Kashif

# **BEND TEST:**

# 8	Sample bend through 180 degrees Satisfactorily without any crack	Note:-
# 6	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 Test Performed By: Dr. /Engr. S. Asad Ali Gillani

NESPAK, (Pvt) Ltd. Lahore

**SOM Lab** 

 Client Reference:
 3976/13/MHK/01/120
 Ref:
 2968(Page-1/1)

 Dated:
 14-09-2020
 Dated:
 18-09-2020

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

		D	ia.	A	rea	Yield Ultimate Yield Stress		Ult. S	stress		Ļ	n			
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 <sup>2</sup>	in <sup>2</sup>	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	2.676	8	1.000	0.79	0.786	26.12	35.70	72910	73280	99660	100170	1.30	8.0	16.3	
2	2.646	8	0.995	0.79	0.778	26.91	35.80	75130	76290	99950	101490	1.20	8.0	15.0	
3	2.654	8	0.997	0.79	0.780	25.79	35.14	72000	72920	98100	99350	1.30	8.0	16.3	
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# **BEND TEST:**

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

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

NESPAK, (Pvt) Ltd. Lahore

**SOM Lab** 

 Client Reference:
 3976/13/MHK/01/120
 Ref:
 2968(Page-1/1)

 Dated:
 14-09-2020
 Dated:
 18-09-2020

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

		D	ia.	A	rea	Yield Ultimate Yield Stress		Ult. S	stress		Ļ	n			
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 <sup>2</sup>	in <sup>2</sup>	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	2.676	8	1.000	0.79	0.786	26.12	35.70	72910	73280	99660	100170	1.30	8.0	16.3	
2	2.646	8	0.995	0.79	0.778	26.91	35.80	75130	76290	99950	101490	1.20	8.0	15.0	
3	2.654	8	0.997	0.79	0.780	25.79	35.14	72000	72920	98100	99350	1.30	8.0	16.3	
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# **BEND TEST:**

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

Engr. Shafiq Ahmad Test Performed By: Dr. /Engr. Gillani

Resident Engr, New Vision Engg. Consultant, (Genome Center Virtual University at Kala Shah Kaku)

**SOM Lab** 

 Client Reference:
 NVEC/RE/VU/2020/36
 Ref:
 2970 (Page-1/1)

**Dated:** 26-08-2020 **Dated:** 18-09-2020

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

Gauge Length: 8 inch Sample Type: Deformed Bar (Prime Steel)

		D	ia.	А	rea	Yield Ultimate Yield Stress		Ult. 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
	lb/ft	#	in	in <sup>2</sup>	in <sup>2</sup>	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	1.512	6	0.752	0.44	0.444	12.49	19.85	62590	62030	99480	98590	1.30	8.0	16.3	
2	1.055	5	0.628	0.31	0.310	11.64	14.39	82820	82820	102400	102400	1.00	8.0	12.5	
3	0.675	4	0.502	0.20	0.198	7.00	8.51	77230	78010	93860	94810	1.10	8.0	13.8	
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-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
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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 Six Samples
		Received and Tested

Engr. Shafiq Ahmad Test Performed By: Dr. /Engr. Gillani

Resident Engr, New Vision Engg. Consultant, (Genome Center Virtual University at Kala Shah Kaku)

**SOM Lab** 

 Client Reference:
 NVEC/RE/VU/2020/36
 Ref:
 2970 (Page-1/1)

**Dated:** 26-08-2020 **Dated:** 18-09-2020

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

Gauge Length: 8 inch Sample Type: Deformed Bar (Prime Steel)

		D	ia.	А	rea	Yield Ultimate Yield Stress		Ult. 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
	lb/ft	#	in	in <sup>2</sup>	in <sup>2</sup>	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	1.512	6	0.752	0.44	0.444	12.49	19.85	62590	62030	99480	98590	1.30	8.0	16.3	
2	1.055	5	0.628	0.31	0.310	11.64	14.39	82820	82820	102400	102400	1.00	8.0	12.5	
3	0.675	4	0.502	0.20	0.198	7.00	8.51	77230	78010	93860	94810	1.10	8.0	13.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
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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 Six Samples
		Received and Tested