

To,  
 Resident Engineer  
 HA Consulting  
 Establishment / Construction of Model Bazar Sharaqpur District Sheikhpura

Reference # CED/TFL 6926 (Dr. M Kashif)  
 Reference of the request letter # 25/HAC-MAS/RE/Sharaqpur/135

Dated: 08-05-2025  
 Dated: 06-04-2025

**Tension Test Report** (Page-1/2)

Date of Test 16-05-2025  
 Gauge Length 2 inches  
 Description Angle Iron Steel Strips Tensile Test Report

Sr. No.	Designation	Size of Strip	X Section Area	Yield Load	Breaking Load	Yield Stress	Ultimate Stress	Elongation	% Elongation	Remarks
	(Inch)	(mm)	(mm <sup>2</sup> )	(kg)	(kg)	(MPa)	(MPa)	(inch)		
1	-	3.00 x 30.60	91.80	3870	4400	413.6	470.2	0.5	25.0	-
2	-	3.00 x 30.40	91.20	2850	3430	306.6	369.0	0.7	35.0	-
3	-	4.00 x 30.60	122.40	3060	6090	245.3	488.1	0.6	30.0	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-

**Note: Only 3 Samples for Tensile and 3 Samples for Bend test**

Bend Test	
3.0 x 30.6 Strip Bend Test Through 180 Degree is Satisfactory	
3.0 x 30.6 Strip Bend Test Through 180 Degree is Satisfactory	
4.0 x 30.6 Strip Bend Test Through 180 Degree is Satisfactory	

Test Performed and Verified by:

To,  
 Resident Engineer  
 HA Consulting  
 Establishment / Construction of Model Bazar Sharaqpur District Sheikhpura

Reference # CED/TFL 6926 (Dr. M Kashif)  
 Reference of the request letter # 25/HAC-MAS/RE/Sharaqpur/135

Dated: 08-05-2025  
 Dated: 06-04-2025

**Tension Test Report** (Page-2/2)

Date of Test 16-05-2025  
 Gauge Length 2 inches  
 Description Angle Iron Steel Strips Tensile Test Report

Sr. No.	Designation	Size of Strip	X Section Area	Yield Load	Breaking Load	Yield Stress	Ultimate Stress	Elongation	% Elongation	Remarks
	(Inch)	(mm)	(mm <sup>2</sup> )	(kg)	(kg)	(MPa)	(MPa)	(inch)		
4	-	2.00 x 30.90	61.80	2620	3540	415.9	561.9	0.7	35.0	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-

**Note: Only 1 Samples for Tensile and 1 Samples for Bend test**

Bend Test	
2.0 x 30.9 Strip Bend Test Through 180 Degree is Satisfactory	

Test Performed and Verified by:

To,

Resident Engineer  
HA Consulting  
Establishment / Construction of Model Bazar Sharaqpur District Sheikhpura

Reference # CED/TFL **6926** (Dr. M. Kashif)

Dated: 08-05-2025

Reference of the request letter # 25/HAC-MAS/RE/Sharaqpur/135

Dated: 06-04-2025

**Weight & Size Test Report** (Page – 1/1)

Date of Test 16-05-2025

Description Angle Weight and Size Test

Sr. No.	Designation	Weight	Length	Weight per Unit Length	L-1	L-2	Thickness	Remark
	(inch)	(g)	(mm)	(kg/m)	(mm)	(mm)	(mm)	
1	3.0 x 30.6 mm	415.0	103.6	0.4	58.6 Dia		3.0	
2	3.0 x 30.4 mm	638.0	101.9	0.63	89.0 Dia		3.0	
3	3.0 x 30.6 mm	1077.0	101.6	1.06	113.2 Dia		4.0	
4	2.0 x 30.9mm	344.0	106.2	0.32	38.4	79.5	2.0	
-	-	-	-	-		-	-	
-	-	-	-	-		-	-	
-	-	-	-	-		-	-	
-	-	-	-	-		-	-	
<b>Only Four Samples for Test</b>								

Test Performed and Verified by:

To,  
 Material Specialist  
 EPCM Consultants  
 Water Supply System, Filtration Plants, Tube Wells, OHRs, Scada and Allied Works (LOT-01)

Reference # CED/TFL 6946 (Dr. M Kashif) Dated: 13-05-2025  
 Reference of the request letter # 3976/11/MS/SWL/Lot-01/01/1297 Dated: 06-05-2025

**Tension Test Report** (Page-1/4)

Date of Test 16-05-2025  
 Gauge Length 2 inches  
 Description Angle Iron Steel Strips Tensile Test Report

Sr. No.	Designation	Size of Strip	X Section Area	Yield Load	Breaking Load	Yield Stress	Ultimate Stress	Elongation	% Elongation	Remarks
	(Inch)	(mm)	(mm <sup>2</sup> )	(kg)	(kg)	(MPa)	(MPa)	(inch)		
1	MS Pipe of 16"	6.10 x 25.00	152.50	5150	6750	331.3	434.2	0.7	35.0	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-

**Note: Only 1 Samples for Tensile and 1 Samples for Bend test**

Bend Test	
MS Pipe of 16" Strip Bend Test Through 180 Degree is Satisfactory	

Test Performed and Verified by:

To,  
 Material Specialist  
 EPCM Consultants  
 Water Supply System, Filtration Plants, Tube Wells, OHRs, Scada and Allied Works (LOT-01)

Reference # CED/TFL 6946 (Dr. M Kashif)  
 Reference of the request letter # 3976/11/MS/SWL/Lot-01/01/1296

Dated: 13-05-2025  
 Dated: 06-05-2025

**Tension Test Report** (Page-3/4)

Date of Test 16-05-2025  
 Gauge Length 2 inches  
 Description Angle Iron Steel Strips Tensile Test Report

Sr. No.	Designation	Size of Strip	X Section Area	Yield Load	Breaking Load	Yield Stress	Ultimate Stress	Elongation	% Elongation	Remarks
	(Inch)	(mm)	(mm <sup>2</sup> )	(kg)	(kg)	(MPa)	(MPa)	(inch)		
1	GI Pipe of 50mm	3.70 x 25.40	93.98	2310	3980	241.1	415.4	0.8	40.0	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-

**Note: Only 1 Samples for Tensile and 1 Samples for Bend test**

Bend Test	
GI Pipe of 50mm Strip Bend Test Through 180 Degree is Satisfactory	

Test Performed and Verified by:

To,

Material Specialist

EPCM Consultants

Water Supply System, Filtration Plants, Tube Wells, OHRs, Scada and Allied Works (LOT-01)

Reference # CED/TFL **6946** (Dr. M. Kashif)

Dated: 13-05-2025

Reference of the request letter # 3976/11/MS/SWL/Lot-01/01/1297

Dated: 06-05-2025

**Weight & Size Test Report** (Page – 2/4)

Date of Test 16-05-2025

Description Angle Weight and Size Test

Sr. No.	Designation	Weight	Length	Weight per Unit Length	Dia		Thickness	Remark
	(inch)	(kg)	(cm)	(kg/m)	(cm)		(mm)	
1	MS Pipe of 16"	18.45	31.5	58.57	41.0		6.2	
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
<b>Only One Sample for Test</b>								

Test Performed and Verified by:

To,

Material Specialist  
EPCM Consultants  
Water Supply System, Filtration Plants, Tube Wells, OHRs, Scada and Allied Works (LOT-01)

Reference # CED/TFL **6946** (Dr. M. Kashif)

Dated: 13-05-2025

Reference of the request letter # 3976/11/MS/SWL/Lot-01/01/1296

Dated: 06-05-2025

**Weight & Size Test Report** (Page – 4/4)

Date of Test 16-05-2025

Description Angle Weight and Size Test

Sr. No.	Designation	Weight	Length	Weight per Unit Length	Dia		Thickness	Remark
	(inch)	(g)	(mm)	(kg/m)	(mm)	(mm)		
1	GI Pipe of 50mm	486	102.7	0.47	60.0		3.7	
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
<b>Only One Sample for Test</b>								

Test Performed and Verified by:

To,  
 Mr. Zabeeh Ullah  
 Asia Poultry Feeds(Pvt.) Ltd.

Reference # CED/TFL 6952 (Dr. M Kashif)  
 Reference of the request letter # Nil

Dated: 13-05-2025  
 Dated: 13-05-2025

**Tension Test Report** (Page-1/1)

Date of Test 16-05-2025  
 Gauge Length 8 inches  
 Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Actual Weight Per Unit Length (lb/ft)	Nominal Size (#)	Actual Diameter (inch)	Area (in <sup>2</sup> )		Yield Load (kN)	Breaking Load (kN)	Yield Stress (psi)		Ultimate Stress (psi)		Elongation (inch)	% Elongation	Remarks
				Nominal	Actual			Nominal	Actual	Nominal	Actual			
1	0.369	3	0.371	0.110	0.108	31.00	46.50	63330	64287	94995	96431	1.1	13.8	3"/8
2	0.368	3	0.371	0.110	0.108	31.20	46.70	63739	64921	95403	97173	1.0	12.5	3"/8
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

**Note: Only 2 Samples for Tensile and 1 Samples for Bend test**

Bend Test
# 3 Bar Bend Test Through 180 Degree is Satisfactory

Test Performed and Verified by:

To,

Mr. Muhammad Saleem (Material Engineer Nespak)  
 Nespak (Pvt.) Ltd.  
 Rainwater Management- Drainage Arrangement for Sore Point at Tikka Chowk, Lahore  
 AK-Supreme Steel (ADP-WASA 2024-25)

Reference # CED/TFL 6958 (Dr. M Kashif) Dated: 14-05-2025  
 Reference of the request letter # Nespak/Wasa/ADP/UGWT/Tikkachowk/ME/1 Dated: 03-05-2025

**Tension Test Report** (Page-1/1)

Date of Test 16-05-2025  
 Gauge Length 8 inches  
 Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Actual Weight Per Unit Length (lb/ft)	Nominal Size (#)	Actual Diameter (inch)	Area (in <sup>2</sup> )		Yield Load (kN)	Breaking Load (kN)	Yield Stress (psi)		Ultimate Stress (psi)		Elongation (inch)	% Elongation	Remarks
				Nominal	Actual			Nominal	Actual	Nominal	Actual			
1	0.368	3	0.371	0.110	0.108	38.70	48.00	79060	80319	98059	99621	0.9	11.3	-
2	0.368	3	0.371	0.110	0.108	34.50	45.00	70480	71716	91931	93542	1.1	13.8	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

**Note: Only 2 Samples for Tensile and 1 Samples for Bend test**

Bend Test	
# 3 Bar Bend Test Through 180 Degree is Satisfactory	

Test Performed and Verified by:

To,  
AF Steel Re Rolling Mills

-  
-  
-

Reference # CED/TFL 6961 (Dr. M Kashif)  
Reference of the request letter # AFS/TAWAL\_Letter# 1405-01

Dated: 14-05-2025  
Dated: 14-05-2025

**Tension Test Report** (Page-1/3)

Date of Test 16-05-2025  
Gauge Length 2 inches  
Description Angle Iron Steel Strips Tensile Test Report

Sr. No.	Designation	Size of Strip	X Section Area	Yield Load	Breaking Load	Yield Stress	Ultimate Stress	Elongation	% Elongation	Remarks
	(Inch)	(mm)	(mm <sup>2</sup> )	(kg)	(kg)	(MPa)	(MPa)	(inch)		
1	M.S Steel Angle	24.50 x 4.80	117.60	6120	7750	510.5	646.5	0.8	40.0	Shalimar
2	M.S Steel Angle	27.30 x 5.30	144.69	7640	8970	518.0	608.2	0.7	35.0	Shalimar
3	H.T Steel Angle	26.80 x 5.10	136.68	6950	8480	498.8	608.6	0.1	5.0	Ishtiaq
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-

**Note: Only 3 Samples for Tensile and 3 Samples for Bend test**

Bend Test	
M.S Steel Angle Strip Bend Test Through 180 Degree is Satisfactory	
M.S Steel Angle Strip Bend Test Through 180 Degree is Satisfactory	
H.T Steel Angle Strip Bend Test Through 180 Degree is Satisfactory	

Test Performed and Verified by:

To,  
AF Steel Re Rolling Mills

-  
-  
-

Reference # CED/TFL 6961 (Dr. M Kashif)  
Reference of the request letter # AFS/TAWAL\_Letter# 1405-01

Dated: 14-05-2025  
Dated: 14-05-2025

**Tension Test Report** (Page-2/3)

Date of Test 16-05-2025  
Gauge Length 2 inches  
Description Angle Iron Steel Strips Tensile Test Report

Sr. No.	Designation	Size of Strip	X Section Area	Yield Load	Breaking Load	Yield Stress	Ultimate Stress	Elongation	% Elongation	Remarks
	(Inch)	(mm)	(mm <sup>2</sup> )	(kg)	(kg)	(MPa)	(MPa)	(inch)		
4	H.T Steel Angles	27.10 x 6.50	176.15	8050	10060	448.3	560.3	0.3	15.0	Ishtiaq
5	H.T Steel Angles	27.10 x 9.20	249.32	12130	14980	477.3	589.4	0.4	20.0	Ishtiaq
6	H.T Steel Angles	27.20 x 9.60	261.12	13230	15950	497.0	599.2	0.4	20.0	Ishtiaq
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-

**Note: Only 3 Samples for Tensile and 3 Samples for Bend test**

Bend Test
H.T Steel Angles Strip Bend Test Through 180 Degree is Satisfactory
H.T Steel Angles Strip Bend Test Through 180 Degree is Satisfactory
H.T Steel Angles Strip Bend Test Through 180 Degree is Satisfactory

Test Performed and Verified by:

To,  
AF Steel Re Rolling Mills

-  
-  
-

Reference # CED/TFL 6961 (Dr. M Kashif)  
Reference of the request letter # AFS/TAWAL\_Letter# 1405-01

Dated: 14-05-2025  
Dated: 14-05-2025

**Tension Test Report** (Page-3/3)

Date of Test 16-05-2025  
Gauge Length 2 inches  
Description Angle Iron Steel Strips Tensile Test Report

Sr. No.	Designation	Size of Strip	X Section Area	Yield Load	Breaking Load	Yield Stress	Ultimate Stress	Elongation	% Elongation	Remarks
	(Inch)	(mm)	(mm <sup>2</sup> )	(kg)	(kg)	(MPa)	(MPa)	(inch)		
7	H.T Steel Angles	27.00 x 12.90	348.30	15390	19470	433.5	548.4	0.45	22.5	Ishtiaq
8	H.T Steel Angles	26.80 x 12.90	345.72	17150	20920	486.6	593.6	0.4	20.0	Ishtiaq
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-

**Note: Only 2 Samples for Tensile and 2 Samples for Bend test**

<b>Bend Test</b>	
H.T Steel Angles Strip Bend Test Through 180 Degree is Satisfactory	
H.T Steel Angles Strip Bend Test Through 180 Degree is Satisfactory	

Test Performed and Verified by:

To,

Sub Divisional Officer  
Road Construction, Sub Division No.1, Lahore  
Rehabilitation of Barki Road From BTB Canal to Hudiara Drain I/C Bridge in District  
Lahore

Reference # CED/TFL **6965** (Dr. M. Kashif)

Dated: 15-05-2025

Reference of the request letter # SA-466F/103/GH/ML/Lab/108

Dated: 12-05-2025

### Tension Test Report (Page -1/2)

Date of Test 16-05-2025

Gauge length 600 mm

Description Steel Strand Tensile Test as per ASTM A-416-94a

Sr. No.	Nominal Diameter	Nominal Weight	Measured weight	Yield strength clause (6.3)		Breaking strength clause (6.2)		Young's Modulus of Elasticity "E"	% Elongation	Remarks / Coil No.
	(mm)	(kg/1000m)	(kg/1000m)	(kg)	(kN)	(kg)	(kN)	GPa		
1	12.70 (1/2")	780.0	784.0	17600	172.66	19500	191.30	199	>3.50	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
<b>Only one sample for Test</b>										

Note:

1. Modulus of Elasticity is based on nominal steel area of the steel strand vide clause 13.3 of ASTM – A416a
2. Load versus percentage strain graphs are attached

Test Performed and Verified by:

To,

Sub Divisional Officer  
Road Construction, Sub Division No.1, Lahore  
Rehabilitation of Barki Road From BTB Canal to Hudiara Drain I/C Bridge in District  
Lahore

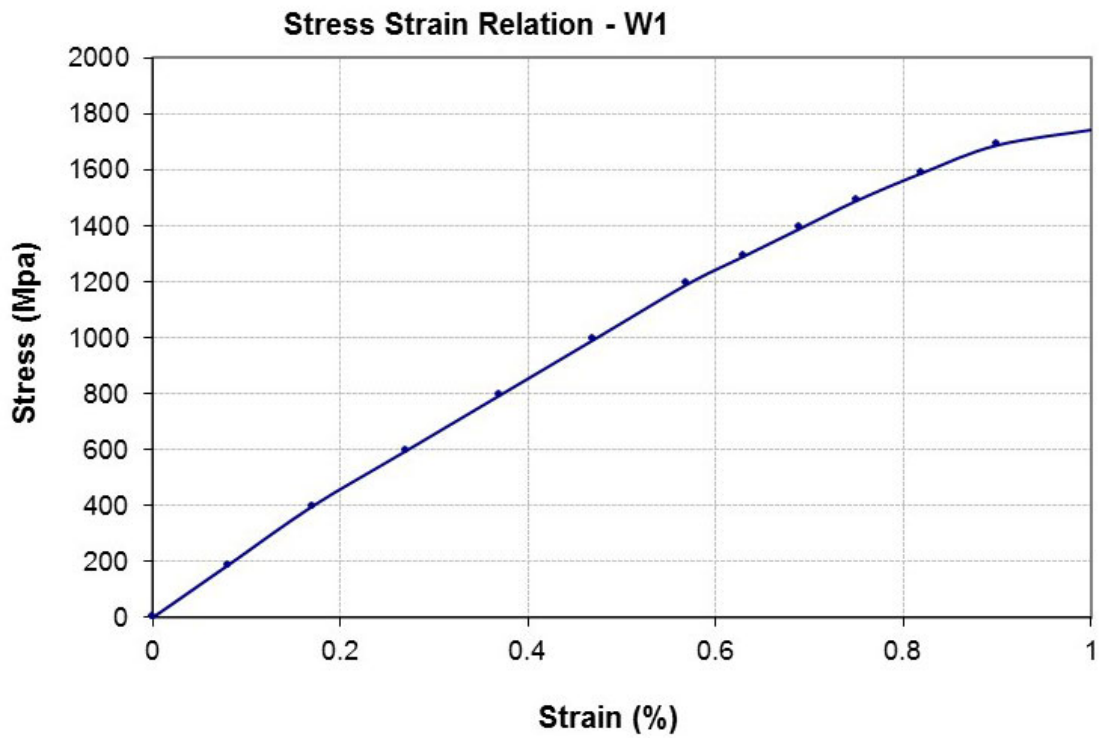
Reference # CED/TFL **6965** (Dr. M. Kashif)

Dated: 15-05-2025

Reference of the request letter # SA-466F/103/GH/ML/Lab/108

Dated: 12-05-2025

**Graph** (Page – 2/2)



Test Performed and Verified by:

To,

Mr. M. Usman Rauf (Resident Engineer)

Nespak (Pvt.) Ltd.

Restoration / Improvement of Road From Pattoki to Mega via Hanjrai Kalan Length = 23.00 Km in District Kasur

Reference # CED/TFL 6968 (Dr. M Kashif)

Dated: 15-05-2025

Reference of the request letter # 4084/103/MUR/104/37

Dated: 05-05-2025

### Tension Test Report (Page-1/2)

Date of Test 16-05-2025

Gauge Length 8 inches

Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Actual Weight Per Unit Length (lb/ft)	Nominal Size (#)	Actual Diameter (inch)	Area (in <sup>2</sup> )		Yield Load (kN)	Breaking Load (kN)	Yield Stress (psi)		Ultimate Stress (psi)		Elongation (inch)	% Elongation	Remarks
				Nominal	Actual			Nominal	Actual	Nominal	Actual			
1	0.376	3	0.375	0.110	0.11	33.50	46.50	68437	68171	94995	94625	1.0	12.5	-
2	0.375	3	0.374	0.110	0.11	33.20	46.50	67824	67746	94995	94885	1.0	12.5	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Note: Only 2 Samples for Tensile and 1 Samples for Bend test

#### Bend Test

# 3 Bar Bend Test Through 180 Degree is Satisfactory

Test Performed and Verified by:

To,

Mr. M. Usman Rauf (Resident Engineer)

Nespak (Pvt.) Ltd.

Restoration / Improvement of Road From Pattoki to Mega via Hanjrai Kalan Length = 23.00 Km in District Kasur

Reference # CED/TFL 6968 (Dr. M Kashif)

Dated: 15-05-2025

Reference of the request letter # 4084/103/MUR/104/38

Dated: 05-05-2025

### Tension Test Report (Page-2/2)

Date of Test 16-05-2025

Gauge Length 8 inches

Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Actual Weight Per Unit Length (lb/ft)	Nominal Size (#)	Actual Diameter (inch)	Area (in <sup>2</sup> )		Yield Load (kg)	Breaking Load (kg)	Yield Stress (psi)		Ultimate Stress (psi)		Elongation (inch)	% Elongation	Remarks
				Nominal	Actual			Nominal	Actual	Nominal	Actual			
1	4.299	10	1.268	1.270	1.263	50000	54000	86772	87233	93713	94212	0.6	7.5	-
2	4.304	10	1.269	1.270	1.265	50000	54000	86772	87126	93713	94096	0.6	7.5	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

**Note: Only 2 Samples for Tensile and 1 Samples for Bend test**

Bend Test	
# 10 Bar Bend Test Through 180 Degree is Satisfactory	

Test Performed and Verified by: