Senior Engineer,

PATRIP Project SRSP,

Construction of Patai and Ursoon Bridges in UC Ashrait Citral (PAK-SRSP-CHI-019) Creative Engineering Consultants (PMCSC)

Dated: 04-06-2025

Dated: 02-06-2025

Reference # CED/TFL 7071 (Dr. M. Rizwan Riaz)

Reference of the request letter # Nil

Tension Test Report (Page – 1/1)

Date of Test 13-06-2025

Description Steel Wire Rope Tensile Test

Sr. No.	Nominal Diameter	Measured weight	Breaking Load	Remarks / Coil No.
	(mm)	(kg/m)	(kg)	Rema
1	12	0.64	10300	-
2	25	2.57	35400	-
3	32	4.42	65200	-
-	-	-	-	-
-	-	-	-	-
		Only three samples for Te	st	

Field Officer Site AI Abdullah Constructors (Pvt.) Ltd.

Reference # CED/TFL <u>7073 (Dr. Rizwan Riaz)</u> Dated: 11-06-2025 Reference of the request letter # AAC/MT-003/2025 Dated: 11-06-2025

Tension Test Report (Page -1/2)

Date of Test 13-06-2025 Gauge length 600 mm

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

Sr. No.	Nominal Diameter	Nominal Weight	Measured weight		trength e (6.3)	stre	aking ength se (6.2)	% Elongation	Remarks / Coil No.
	(mm)	(kg/1000m)	(kg/1000m)	(kg)	(kN)	(kg)	(kN)	%	Rema
1	9.53 (3/8")	432.0	446.0	10100	99.08	11000	107.91	>3.50	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	_	-	-	-
-	-	-	-	-	-	-	-	-	-

Only one sample for test

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

Field Officer Site AI Abdullah Constructors (Pvt.) Ltd.

Reference # CED/TFL 7073 (Dr. Rizwan Riaz)

Reference of the request letter # AAC/MT-003/2025

Dated: 11-06-2025

Dated: 11-06-2025

Tension Test Report (Page -2/2)

Date of Test 13-06-2025 Gauge length 8 inches

Description MS Wire Tensile Test

Sr. No.	Weight	Si	neter/ ze ch)	Aı (iı	rea 1 ²)	Yield load	Breaking Load		Stress si)		te Stress si)	Elongation	% Elongation	Remarks
S	(lbs/ft) Nominal Actual Actual 6 0.103			Nominal	Actual	Actual Actual Nominal		Nominal	Actual	Nominal	Actual	(inch)	% E	R
1	0.103	5	0.196	-	0.030	800	1080	-	58270	-	78700	0.40	5.0	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	1	-	-	-	•	-	1	-	-	-	-	1	-
-	-	-	-	-	-	ı	-	-	-	-	-	-	ı	-
-	ı	ı	-	-	-	ı	-	ı	-	-	-	-	ı	-
-	ı	-	-	-	-	ı	-	-	-	-	-	-	1	-
					No	te: only o	ne samp	le for ten	sile test					
							Bend T	est						
							Deliu I	CSI						

Mr. Muhammad Saleem (Material Engineer Nespak)

Nespak (Pvt.) Ltd.

Annual Development Program-Wasa (ADP-2024-25) Rainwater Management -Drainage Arrangement for Sore Point "at Tajpura (Amina & Babri), Lahore (Islamabad Premium Steel)

Reference # CED/TFL 7074 (Dr. Rizwan Riaz) Dated: 12-06-2025 Reference of the request letter # Nespak/WASA/ADP/UGWT/TP/ME/09 Dated: 24-05-2025

Tension Test Report (Page-1/1)

Date of Test 13-06-2025 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 (#)		iameter (inch)	Area	(in²)	Yield Load	Breaking Load		Stress si)		e Stress si)	Elongation	% Elongation	Remarks
	Actual W Len	Nominal	Actual D	Nominal	Actual	(kN)	(kN)	Nominal	Actual	Nominal	Actual	(inch)	% E	R
1	0.363	3	0.368	0.110	0.107	31.50	47.70	64351	66398	97446	100545	1.3	16.3	-
2	0.359	3	0.366	0.110	0.105	31.00	46.20	63330	66074	94382	98472	1.0	12.5	-
-	ı	ı	1	1	-	1	ı	1	1	1	-	-	ı	-
-	-	-	-	1	-	1	-	-	-	-	-	-	1	-
-	-	-	-	1	-	1	-	-	-	-	_	-	1	-
-	-	-	1	-	-	-	-	-	-	-	-	-	ı	-

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

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

Mr. Asim Chiragh (Resident Engineer)

Nespak (Pvt.) Ltd.

Restoration/Improvement of Lahore Sargodha Road (khanqah Dogran to District Boundary)

Length=9.5 KM (Section KM 0.00 to 1.33 KM) in Tehsil Safdarabad District Sheikhupura (Supreme Ste

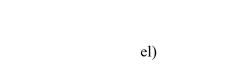
Reference # CED/TFL 7075 (Dr. Rizwan Riaz) Dated: 12-06-2025 Reference of the request letter # 4834/103/RRP-24/AC/93 Dated: 14-05-2025

Tension Test Report (Page-1/2)

Date of Test 13-06-2025 Gauge Length 8 inches

Sr. No.	ıl Weight Per Unit Length (lb/ft)	nal Size (#)	Actual Diameter (inch)	Area	ı (in²)	Yield Load	Breaking Load		Stress si)	Ultimat (p	e Stress si)	Elongation	% Elongation	Remarks
	Actual W Len	Nominal	Actual D	Nominal	Actual	(kN)	(kN)	Nominal	Actual	Nominal	Actual	(inch)	% E	R
1	0.400	3	0.387	0.110	0.117	32.50	52.20	66394	62214	106639	99925	1.1	13.8	-
2	0.382	3	0.378	0.110	0.112	25.50	37.00	52094	51004	75587	74006	1.5	18.8	-
-	1	-	-	-	-	1	-	ı	-	-	ı	-	1	-
-	ı	-	-	1	-	ı	-	1	-	-	ı	-	ı	-
-	•	-	-	-	-	•	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	·		·	Note: (Only 2 S	Samples	for Tens	sile and 1	Samples	for Bend	test			

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



Mr. Asim Chiragh (Resident Engineer)

Nespak (Pvt.) Ltd.

Restoration/Improvement of Lahore Sargodha Road (khanqah Dogran to District Boundary) Length=9.5 (Section KM 0.00 to 1.33 KM) in Tehsil Safdarabad District Sheikhupura (Supreme Steel)

Reference # CED/TFL 7075 (Dr. Rizwan Riaz) Dated: 12-06-2025 4834/103/RRP-24/AC/93 Reference of the request letter # Dated: 14-05-2025

Tension Test Report (Page-2/2)

Date of Test 13-06-2025 Gauge Length 8 inches

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

Sr. No.	al Weight Per Unit Length (lb/ft)	nal Size (#)	Actual Diameter (inch)	Area	(in²)	Yield Load	Breaking Load		Stress si)		e Stress si)	Elongation	% Elongation	Remarks
	Actual W Len	Nominal	Actual D	Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)	H %	R
1	4.329	10	1.273	1.270	1.272	51000	53000	88507	88370	91978	91835	0.7	8.8	Dowel
2	4.329	10	1.273	1.270	1.272	51000	52400	88507	88357	90937	90782	0.7	8.8	Dowel
-	-	-	-	-	-	ı	-	ı	-	ı	-	-	ı	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
_	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				Note: (Only 2 S	Samples	for Tens	sile and 1	Samples	for Bend	test			

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



Sub Divisional Officer

Public Health Engg: Sub Division Kasur

Construction of Sewerage, Water Supply, Drainage and Filteration Plants ETC at UC Mirali Hithar Tehsil & District Kasur

Reference # CED/TFL 7076 (Dr. Rizwan Riaz) Dated: 12-06-2025 Reference of the request letter # 153 Dated: 25-04-2025

Tension Test Report (Page-1/31)

Date of Test 13-06-2025 Gauge Length 8 inches

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

Sr. No.	al Weight Per Unit Length (lb/ft)	nal Size (#)	Actual Diameter (inch)	Area (in²)		Yield Load Breaking Load		Yield Stress (psi)			e Stress si)	Elongation	% Elongation	Remarks
	Actual W Len	Nominal	Actual D	Nominal	Actual	(kN)	(kN)	Nominal	Actual	Nominal	Actual	(inch)	% E	R
1	0.380	3	0.377	0.110	0.112	31.00	46.50	63330	62441	94995	93661	1.4	17.5	3"/8
-	1	ı	-	-	-	•	-	-	-	-	ı	-	ı	-
-	ı	•	ı	ı	ı	ı	-	-	-	-	ı	-	ı	-
_	-	-	-	-	-	-	-	-	_	-	_	-	-	-
_	-	•	-	-	-	-	-	-	-	-	-	-	ı	-
-	-	-	-	-	-	-	-	-	-	-	ı	-	ı	-
				Note: (Only 1 S	Samples	for Tens	sile and 0	Samples	for Bend	test			

Sub Divisional Officer

Public Health Engg: Sub Division Kasur

Construction of Sullage Carrier, Sewerage and Drainage System at Kacha Pacca, Sher Kot and Adjoining Abadies Tehsil & District Kasur

Reference # CED/TFL 7076 (Dr. Rizwan Riaz) Dated: 12-06-2025 Reference of the request letter # 158 Dated: 26-04-2025

Tension Test Report (Page-2/31)

Date of Test 13-06-2025 Gauge Length 8 inches

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

Sr. No.	al Weight Per Unit Length (lb/ft)	nal Size (#)	Actual Diameter (inch)	Area (in²)		Yield Load	Breaking Load	Yield Stress (psi)			e Stress si)	Elongation	% Elongation	Remarks
91	Actual W Len	Nominal	Actual D	Nominal	Actual	(kN)	(kN)	Nominal	Actual	Nominal	Actual	(inch)	% E	R
1	0.379	3	0.377	0.110	0.112	31.20	46.50	63739	62876	94995	93710	1.3	16.3	3"/8
-	1	-	-	-	1	1	-	1	-	ı	ı	-	ı	-
-	ı	•	-	-	ı	ı	-	ı	-	ı	ı	-	ı	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	_	-	_	_	-	-	-	-
				Note: (Only 1 S	Samples	for Tens	sile and 0	Samples	for Bend	test			

Sub Divisional Officer

Public Health Engg: Sub Division Kasur

Construction of Sewerage, Water Supply Drainage and Filteration Plants etc at UC DAO Key Tehsil & District Kasur

Reference # CED/TFL 7076 (Dr. Rizwan Riaz) Dated: 12-06-2025 Reference of the request letter # 127 Dated: 08-04-2025

Tension Test Report (Page-3/31)

Date of Test 13-06-2025 Gauge Length 8 inches

Sr. No.	al Weight Per Unit Length (lb/ft)	nal Size (#)	Actual Diameter (inch)	Area (in²)		Yield Load	Breaking Load	Yield Stress (psi)		Ultimate Stress (psi)		Elongation	% Elongation	Remarks
	Actual W Len	Nominal	Actual D	Nominal	Actual	(kN)	(kN)	Nominal	Actual	Nominal	Actual	(inch)	% E	R
1	0.384	3	0.379	0.110	0.113	30.20	47.00	61696	60118	96016	93562	1.5	18.8	3"/8
-	1	ı	-	-	-	1	-	ı	-	ı	-	-	1	-
-	ı	•	-	ı	-	ı	ı	ı	ı	ı	-	-	ı	ı
-	-	-	-	-	-	-	-	_	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				Note: (Only 1 S	amples	for Tens	sile and 0	Samples	for Bend	test			

Bend Test

Sub Divisional Officer

Public Health Engg: Sub Division Kasur

Construction of Sewerage, Water Supply Drainage and Filteration Plants etc at UC DAO Key Tehsil & District Kasur

Reference # CED/TFL 7076 (Dr. Rizwan Riaz) Dated: 12-06-2025 Reference of the request letter # 127 Dated: 08-04-2025

Tension Test Report (Page-3/31)

Date of Test 13-06-2025 Gauge Length 8 inches

Sr. No. al Weight Per Unit Length (lb/ft)		nal Size (#)	Actual Diameter (inch)	Area	(in²)	Yield Load	Breaking Load	Yield (p	Stress si)		e Stress si)	Elongation	% Elongation	Remarks
	Actual W Len	Nominal	Actual D	Nominal	Actual	(kN)	(kN)	Nominal	Actual	Nominal	Actual	(inch)	% E	R
1	0.384	3	0.379	0.110	0.113	30.20	47.00	61696	60118	96016	93562	1.5	18.8	3"/8
-	1	ı	-	-	-	1	-	ı	-	ı	-	-	1	-
-	ı	•	-	ı	-	ı	ı	ı	ı	ı	-	-	ı	ı
-	-	-	-	-	-	-	-	_	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				Note: (Only 1 S	amples	for Tens	sile and 0	Samples	for Bend	test			

Bend Test

Sub Divisional Officer

Public Health Engg: Sub Division Kasur

Construction of Sewerage, Water Supply, Drainage and Filteration Plants etc at Town Committee Khudian Phase-II Tehsil & District Kasur

Reference # CED/TFL 7076 (Dr. Rizwan Riaz) Dated: 12-06-2025 Reference of the request letter # 123 Dated: 04-04-2025

Tension Test Report (Page-4/31)

Date of Test 13-06-2025 Gauge Length 8 inches

Sr. No.	al Weight Per Unit Length (lb/ft)	nal Size (#)	Actual Diameter (inch)	Area	(in ²)	Yield Load	Breaking Load		Stress si)		e Stress si)	Elongation	% Elongation	Remarks			
	Actual Weig Length Nominal		Nominal	Actual	(kN)	(kN)	Nominal	Actual	Nominal	Actual	(inch)	% E	R				
1	0.371	3	0.373	0.110	0.109	30.70	46.00	62717	63255	93973	94779	1.2	15.0	3"/8			
-	-	-	-	-	-	ı	-	-	-	-	-	-	1	-			
-	-	-	-	-	-	•	-	-	-	-	-	-	-	-			
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
_	-	-	-	-	-	•	-	-	-	ı	-	-	ı	-			
				Note: (Note: Only 1 Samples for Tensile and 0 Samples for Bend test												

Bend Test

Sub Divisional Officer

Public Health Engg: Sub Division Kasur

Construction of Sewerage, Water Supply, Drainage and Filteration Plants etc at UC Rajo Wal Tehsil & District Kasur

Reference # CED/TFL 7076 (Dr. Rizwan Riaz) Dated: 12-06-2025 Reference of the request letter # 128 Dated: 08-04-2025

Tension Test Report (Page-6/31)

Date of Test 13-06-2025 Gauge Length 8 inches

Sr. No. Actual Weight Per Unit Length (lb/ft)		nal Size (#)	Actual Diameter (inch)	Area	(in ²)	Yield Load	Breaking Load	Yield (p	Stress si)	Ultimat (p	e Stress si)	Elongation	% Elongation	Remarks
	Sr. N Actual Weig Length Nominal	Actual D	Nominal	Actual	(kN)	(kN)	Nominal	Actual	Nominal	Actual	(inch)	% F	x	
1	0.374	3	0.374	0.110	0.11	30.70	45.70	62717	62829	93361	93527	1.4	17.5	3"/8
-	-	ı	-	-	ı	ı	-	1	1	-	1	-	-	-
-	1	ı	-	-	•	1	-	ı	ı	-	ı	-	1	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	_	-	-	-
				Note: (Only 1 S	Samples	for Tens	sile and 0	Samples	for Bend	test			

Bend Test

Sub Divisional Officer

Public Health Engg: Sub Division Kasur

Construction of Sewerage, Water Supply, Drainage and Filteration Plants etc at UC Sanda

Tehsil & District Kasur

Reference # CED/TFL 7076 (Dr. Rizwan Riaz) Dated: 12-06-2025 Reference of the request letter # 152 Dated: 25-04-2025

Tension Test Report (Page-7/31)

Date of Test 13-06-2025 Gauge Length 8 inches

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

Sr. No. al Weight Per Unit Lenoth (lb/ft)		nal Size (#)	Actual Diameter (inch)	Area	(in ²)	Yield Load	Breaking Load		Stress si)		e Stress si)	Elongation	% Elongation	Remarks
	Actual Weig Length Nominal		Actual D	Nominal	Actual	(kN)	(kN)	Nominal	Actual	Nominal	Actual	(inch)	% E	R
1	0.380	3	0.377	0.110	0.112	31.00	46.00	63330	62409	93973	92607	1.3	16.3	3"/8
-	1	-	-	1	-	1	-	-	-	-	-	-	1	-
-	ı	•	-	ı	-	ı	-	ı	-	ı	-	-	ı	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
_	-	-	-	•	-	•	-	-	-	ı	-	-	ı	-
	Note: Only 1 Samples for Tensile and 0 Samples for Bend test													

Sub Divisional Officer

Public Health Engg: Sub Division Kasur

Construction of Sewerage, Water Supply, Drainage and Filteration Plants etc at Judicial Complex District Courts and District Bar Kasur.

Reference # CED/TFL 7076 (Dr. Rizwan Riaz) Dated: 12-06-2025 Reference of the request letter # 155 Dated: 26-04-2025

Tension Test Report (Page-8/31)

Date of Test 13-06-2025 Gauge Length 8 inches

Sr. No. al Weight Per Unit Length (lb/ft)		nal Size (#)	Actual Diameter (inch)	Area	(in ²)	Yield Load	Breaking Load		Stress si)		e Stress si)	Elongation	% Elongation	Remarks
	Actual Weig Length Nominal		Nominal	Actual	(kN)	(kN)	Nominal	Actual	Nominal	Actual	(inch)	% E	R	
1	0.376	3	0.375	0.110	0.111	31.00	46.70	63330	62985	95403	94884	1.4	17.5	3"/8
-	-	-	-	-	-	1	-	-	-	-	-	-	1	-
_	1	-	-	-	1	1	-	ı	-	ı	ı	-	ı	-
_	-	-	-	-	-	-	-	-	-	-	-	-	-	-
_	-	-	-	-	-	-	-	-	-	-	-	-	-	-
_	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Note: Only 1 Samples for Tensile and 0 Samples for Bend test													

Bend Test

Sub Divisional Officer

Public Health Engg: Sub Division Kasur

Construction of Sewerage, Water Supply, Drainage and Filteration Plants etc at Mandi Usman Wala Tehsil & District Kasur

Reference # CED/TFL 7076 (Dr. Rizwan Riaz) Dated: 12-06-2025 Reference of the request letter # 150 Dated: 24-04-2025

Tension Test Report (Page-9/31)

Date of Test 13-06-2025 Gauge Length 8 inches

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

Sr. No.	Weight Per Unit ength (lb/ft)	nal Size (#)	Actual Diameter (inch)	Area	(in ²)	Yield Load	Breaking Load		Stress si)		e Stress si)	Elongation	%	Remarks
	Actual Weigh Length Nominal S		Nominal	Actual	(kN)	(kN)	Nominal	Actual	Nominal	Actual	(inch)	% E	R	
1	0.374	3	0.374	0.110	0.11	30.00	46.20	61287	61355	94382	94486	1.4	17.5	3"/8
-	1	ı	-	-	1	-	-	ı	-	ı	ı	-	ı	-
-	ı	•	-	-	ı	-	-	ı	-	ı	ı	-	ı	-
_	-	-	-	-	-	-	-	-	-	-	-	-	-	-
_	-	-	-	-	-	-	-	-	-	-	-	-	-	-
_	-	-	-	-	-	-	-	-	-	ı	ı	-	ı	-
				Note: (Only 1 S	Samples	for Tens	sile and 0	Samples	for Bend	test			

Sub Divisional Officer

Public Health Engg: Sub Division Kasur

Construction of Sewerage, Water Supply, Drainage and Filteration Plants etc at Mandi Usman Wala Phase-II Tehsil & District Kasur

Reference # CED/TFL 7076 (Dr. Rizwan Riaz) Dated: 12-06-2025 Reference of the request letter # 151 Dated: 24-04-2025

Tension Test Report (Page-10/31)

Date of Test 13-06-2025 Gauge Length 8 inches

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

Sr. No.	al Weight Per Unit Length (lb/ft)	nal Size (#)	Actual Diameter (inch)	Area	(in ²)	Yield Load	Breaking Load		Stress si)		e Stress si)	Elongation	% Elongation	Remarks
S Actual W Leny	Nominal	Nomi Actual L	Actual D	Nominal	Actual	(kN)	(kN)	Nominal	Actual	Nominal	Actual	(inch)	% E	R
1	0.387	3	0.381	0.110	0.114	32.20	47.50	65781	63570	97038	93776	1.4	17.5	3"/8
-	-	-	-	-	-	1	-	1	-	-	1	-	-	-
-	•	-	-	-	-	•	-	ı	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
_	-	-	-	-	-	-	-	_	_	-	-	-	-	-
_	_	-	-	-	-	-	-	-	_	-	-	-	-	-
				Note: (Only 1 S	Samples	for Tens	sile and 0	Samples	for Bend	test			

Sub Divisional Officer

Public Health Engg: Sub Division Kasur

Construction of Sewerage/Water Supply & Drainage Scheme at MC Mustafaabad (P)

Tehsil & District Kasur

Reference # CED/TFL 7076 (Dr. Rizwan Riaz) Dated: 12-06-2025 Reference of the request letter # 55 Dated: 17-02-2025

Tension Test Report (Page-11/31)

Date of Test 13-06-2025 Gauge Length 8 inches

Sr. No.	Actual Weight Per Unit Length (lb/ft)	nal Size (#)	Actual Diameter (inch)	Area	Area (in²)		Breaking Load	Yield (p	Stress si)		e Stress si)	Elongation	% Elongation	Remarks
	Actual W Len	Nominal	Actual D	Nominal		(kN)	(kN)	Nominal	Actual	Nominal	Actual	(inch)	% E	R
1	0.380	3	0.377	0.110	0.112	31.00	46.50	63330	62336	94995	93504	1.4	17.5	3"/8
-	-	-	-	-	-	1	-	-	-	-	-	-	1	-
-	1	1	-	-	-	1	1	ı	1	ı	ı	-	ı	-
-	-	-	-	-	-	-	-	-	-	-	-	-	ı	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Note: Only						for Tens	sile and 0	Samples	for Bend	test			

Bend Test

Sub Divisional Officer

Public Health Engg: Sub Division Kasur

Construction of Sewerage/Water Supply & Drainage Scheme at Mouza Haveli Padhana Wali & Adjoining Abadies Tehsil & District Kasur

Reference # CED/TFL 7076 (Dr. Rizwan Riaz) Dated: 12-06-2025 Reference of the request letter # 95 Dated: 10-03-2025

Tension Test Report (Page-12/31)

Date of Test 13-06-2025 Gauge Length 8 inches

Sr. No.	al Weight Per Unit Length (lb/ft)	nal Size (#)	Actual Diameter (inch)	Area	Area (in²)		Breaking Load	Yield (p	Stress si)	Ultimat (p	e Stress si)	Elongation	% Elongation	Remarks
	Actual W Len	Nominal	Actual D	Nominal	Actual	(kN)	(kN)	Nominal	Actual	Nominal	Actual	(inch)	% E	R
1	0.388	3	0.381	0.110	0.114	32.50	47.70	66394	64006	97446	93941	1.2	15.0	3"/8
-	-	-	-	1	-	1	-	-	-	-	-	-	-	-
-	ı	ı	-	ı	-	ı	ı	ı	ı	ı	ı	-	ı	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	_	-	-	-	-	-	-	-	-	-	-
	Note: Only					Samples	for Tens	sile and 0	Samples	for Bend	test			

Bend Test

Sub Divisional Officer

Public Health Engg: Sub Division Kasur

Construction of Sewerage/Water Supply & Drainage Scheme at Mouza Jabbomail Adjoining Abadies Tehsil & District Kasur

Reference # CED/TFL 7076 (Dr. Rizwan Riaz) Dated: 12-06-2025 Reference of the request letter # 70 Dated: 26-02-2025

Tension Test Report (Page-13/31)

Date of Test 13-06-2025 Gauge Length 8 inches

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

Sr. No.	al Weight Per Unit Length (lb/ft)	nal Size (#)	Actual Diameter (inch)	Area	Nominal Actual		Breaking Load		Stress si)		e Stress si)	Elongation	% Elongation	Remarks
	Actual W Len	Nominal	Actual D	Nominal			(kN)	Nominal	Actual	Nominal	Actual	(inch)	% E	R
1	0.373	3	0.374	0.110	0.11	30.00	45.70	61287	61457	93361	93619	1.4	17.5	3"/8
-	1	ı	-	-	1	-	-	-	-	ı	-	-	ı	-
-	ı	•	-	-	ı	-	-	-	-	ı	-	-	ı	-
-	-	-	-	-	-	-	-	-	-	-	-	-	ı	-
-	-	•	-	-	-	-	-	-	-	ı	-	-	ı	-
_	-	-	-	-			-	-	-	ı	-	-	ı	-
	Note: Only				Only 1 S	Samples	for Tens	sile and 0	Samples	for Bend	test			

Sub Divisional Officer

Public Health Engg: Sub Division Kasur

Construction of Sewerage/Water Supply & Drainage Scheme at Mustaabad (N)

Tehsil & District Kasur

Reference # CED/TFL 7076 (Dr. Rizwan Riaz) Dated: 12-06-2025 Reference of the request letter # 54 Dated: 17-02-2025

Tension Test Report (Page-14/31)

Date of Test 13-06-2025 Gauge Length 8 inches

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

Sr. No.	al Weight Per Unit Length (lb/ft)	nal Size (#)	Actual Diameter (inch)	Area	Nominal Actual Actual		Breaking Load		Stress si)		e Stress si)	Elongation	% Elongation	Remarks
	Actual W Len	Nominal	Actual D	Nominal			(kN)	Nominal	Actual	Nominal	Actual	(inch)	% E	R
1	0.379	3	0.377	0.110	0.111	31.20	47.00	63739	62949	96016	94826	1.3	16.3	3"/8
-	-	-	-	-	-	1	-	-	-	-	-	-	1	-
_	1	-	-	-	1	1	-	ı	-	ı	ı	-	ı	-
-	ı	•	-	-	ı	ı	-	ı	-	ı	ı	-	ı	-
_	-	-	-	-	-	-	-	_	-	-	-	-	-	-
_	-	-	-	-			-	-	-	ı	ı	-	ı	-
			Note: Only 1			Samples	for Tens	sile and 0	Samples	for Bend	test			

Sub Divisional Officer

Public Health Engg: Sub Division Kasur

Construction of Sewerage/Water Supply & Drainage Scheme at Dao Kay Kalan, Dao Kay Khaniana, Qil Daokay & Basti Fateh Muhammad & Adjoining AbadiesTehsil & District Kasur

Reference # CED/TFL 7076 (Dr. Rizwan Riaz) Dated: 12-06-2025 Reference of the request letter # 30 Dated: 30-01-2025

Tension Test Report (Page-15/31)

Date of Test 13-06-2025 Gauge Length 8 inches

Sr. No.	al Weight Per Unit Length (lb/ft)	nal Size (#)	Actual Diameter (inch)	Area	Nominal Actual		Breaking Load		Stress si)		e Stress si)	Elongation	% Elongation	Remarks
	Actual W Len	Nominal	Actual D	Nominal			(kN)	Nominal	Actual	Nominal	Actual	(inch)	% E	R
1	0.388	3	0.381	0.110	0.114	32.70	47.20	66803	64478	96425	93070	1.5	18.8	3"/8
-	1	-	-	-	1	-	-	-	-	-	-	-	1	-
-	ı	•	-	-	ı	ı	-	ı	-	ı	ı	-	ı	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
_	-	-	-	-	-	-	-	-	-	-	-	-	-	-
_	-	-	-	-	-		-	-	-	-	-	-	-	-
		Note: Only 1			Only 1 S	Samples	for Tens	sile and 0	Samples	for Bend	test			

Bend Test

Sub Divisional Officer

Public Health Engg: Sub Division Kasur

Construction of Sewerage/Water Supply & Drainage Scheme at U.C Charewan

Tehsil & District Kasur

Reference # CED/TFL 7076 (Dr. Rizwan Riaz) Dated: 12-06-2025 Reference of the request letter # 50 Dated: 15-02-2025

Tension Test Report (Page-16/31)

Date of Test 13-06-2025 Gauge Length 8 inches

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

Sr. No.	al Weight Per Unit Length (lb/ft)	nal Size (#)	Actual Diameter (inch)	Area	Nominal Actual Actual		Breaking Load		Stress si)		e Stress si)	Elongation	% Elongation	Remarks
	Actual W Len	Nominal	Actual D	Nominal			(kN)	Nominal	Actual	Nominal	Actual	(inch)	% E	R
1	0.371	3	0.372	0.110	0.109	31.00	46.20	63330	63974	94382	95342	1.0	12.5	3"/8
-	-	-	-	-	-	1	-	-	-	-	-	-	1	-
_	1	-	-	-	-	1	-	ı	-	ı	ı	-	ı	-
_	-	-	-	-	-	-	-	-	-	-	-	-	-	-
_	-	-	-	-	-	-	-	-	-	-	-	-	-	-
_	-	-	-	-			-	-	-	-	-	-	-	-
				Note: (ote: Only 1 S		for Tens	sile and 0	Samples	for Bend	test			

Sub Divisional Officer

Public Health Engg: Sub Division Kasur

Construction of Sewerage/Water Supply & Drainage Scheme at Mandi Usman Wala & Adjoining Abadi Tehsil & District Kasur

Reference # CED/TFL 7076 (Dr. Rizwan Riaz) Dated: 12-06-2025 Reference of the request letter # 66 Dated: 25-02-2025

Tension Test Report (Page-17/31)

Date of Test 13-06-2025 Gauge Length 8 inches

Sr. No.	al Weight Per Unit Length (lb/ft)	nal Size (#)	Actual Diameter (inch)	Area	Nominal Actual		Breaking Load		Stress si)		e Stress si)	Elongation	% Elongation	Remarks
	Actual W Len	Nominal	Actual D	Nominal			(kN)	Nominal	Actual	Nominal	Actual	(inch)	% E	R
1	0.381	3	0.378	0.110	0.112	31.20	47.00	63739	62603	96016	94306	1.3	16.3	3"/8
-	-	-	-	-	-	1	-	-	-	-	-	-	1	-
-	ı	•	-	-	ı	ı	-	ı	-	ı	ı	-	ı	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	ı	-
_	-	-	-	-			-	-	-	ı	ı	-	ı	-
				Note: (ote: Only 1 Sa		for Tens	sile and 0	Samples	for Bend	test			

Bend Test

Sub Divisional Officer

Public Health Engg: Sub Division Kasur

Construction of Sewerage/Water Supply & Drainage Scheme at MC Kasur (Phase-II/N)

Tehsil & District Kasur

Reference # CED/TFL 7076 (Dr. Rizwan Riaz) Dated: 12-06-2025

Reference of the request letter # Nil Dated: -

Tension Test Report (Page-18/31)

Date of Test 13-06-2025 Gauge Length 8 inches

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

Sr. No.	al Weight Per Unit Length (lb/ft)	nal Size (#)	Actual Diameter (inch)	Area	Actual Actual		Breaking Load		Stress si)		e Stress si)	Elongation	% Elongation	Remarks
	Actual W Len	Nominal	Actual D	Nominal			(kN)	Nominal	Actual	Nominal	Actual	(inch)	% E	R
1	0.375	3	0.375	0.110	0.11	29.70	45.70	60674	60539	93361	93152	1.5	18.8	3"/8
-	-	-	-	-	1	-	-	-	-	-	-	-	1	-
-	1	-	-	-	-	-	-	ı	-	-	-	-	ı	-
_	-	-	-	-	-	-	-	-	-	-	-	-	-	-
_	-	-	-	-	-	-	-	-	-	-	-	-	-	-
_	-	-	-	-			-	-	-	-	-	-	-	-
	Note: Only				Only 1 S	Samples	for Tens	sile and 0	Samples	for Bend	test			

Sub Divisional Officer

Public Health Engg: Sub Division Kasur

Construction of Sewerage/Water Supply & Drainage Scheme at Ali Garh, Salamat Pura, Islampura, Sheraywala Khou, Latif Pura, Basti Vanaikan Jatuwanwala Qabrastan Tehsil & District Kasur

Reference # CED/TFL 7076 (Dr. Rizwan Riaz) Dated: 12-06-2025 Reference of the request letter # 25 Dated: 24-01-2025

Tension Test Report (Page-19/31)

Date of Test 13-06-2025 Gauge Length 8 inches

Sr. No.	al Weight Per Unit Length (lb/ft)	nal Size (#)	Actual Diameter (inch)	Area	Area (in²)		Breaking Load	Yield Stress (psi)				Elongation	% Elongation	Remarks
	Actual W Len	Actual Weig Length Nominal Actual Diam		Nominal	Actual	(kN)	(kN)	Nominal	Actual	Nominal	Actual	(inch)	% E	R
1	0.377	3	0.375	0.110	0.111	29.50	45.20	60266	59873	92339	91738	1.3	16.3	3"/8
-	1	-	-	-	-	-	-	-	-	-	-	-	1	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
_	-	-	-	-	-	-	-	-	-	-	-	-	-	-
_	-	-	-	_	_	-	_	-	_	-	-	-	-	-
	Note: Only 1 Samples for Tensile and 0 Samples for Bend test													

Bend Test

Sub Divisional Officer

Public Health Engg: Sub Division Kasur

Construction of Sewerage/Water Supply & Drainage Scheme at MC Kasur (Phase-I/N)

Tehsil & District Kasur

Reference # CED/TFL 7076 (Dr. Rizwan Riaz) Dated: 12-06-2025 Reference of the request letter # 26 Dated: 25-01-2025

Tension Test Report (Page-20/31)

Date of Test 13-06-2025 Gauge Length 8 inches

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

/eight Per Unit gth (lb/ft)	nal Size (#)	iameter (inch)	Area	(in ²)	Yield Load	Breaking Load					Elongation	Jongation	Remarks
Actual W Len	Nomi	Actual D	Nominal	Actual	(kN)	(kN)	Nominal	Actual	Nominal	Actual	(inch)	% E	R
0.379	3	0.376	0.110	0.111	30.50	46.20	62308	61592	94382	93297	1.4	17.5	3"/8
-	-	-	1	-	ı	-	1	1	1	-	-	-	-
-	-	ı	ı	ı	ı	ı	ı	ı	ı	-	-	ı	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Actual Weight Per Length (lb/ft)	Actual Weight Per Constitution 1975 1		Actual Weight Per Per	Actual Meight Per Actual Meight Per Actual Meight Per Per Actual Meight Per Compared to the compare	Area (in²) Area (in²) Actual Meight Ber	0.379 3 0.376 0.110 0.111 30.50 46.20	0.379 3 0.376 0.110 0.111 30.50 46.20 62308	0.379 3 0.376 0.110 0.111 30.50 46.20 62308 61592	0.379 3 0.376 0.110 0.111 30.50 46.20 62308 61592 94382	0.379 3 0.376 0.110 0.111 30.50 46.20 62308 61592 94382 93297	1	86 Part Part Part Part Part Part Part Part

Note: Only 1 Samples for Tensile and 0 Samples for Bend test

Bend Test

Sub Divisional Officer

Public Health Engg: Sub Division Kasur

Construction of Sewerage, Water Supply, Drainage and Filteration Plants etc at UC Beroon Khudian Tehsil & District Kasur

Reference # CED/TFL 7076 (Dr. Rizwan Riaz) Dated: 12-06-2025 Reference of the request letter # 156 Dated: 26-04-2025

Tension Test Report (Page-21/31)

Date of Test 13-06-2025 Gauge Length 8 inches

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

Sr. No.	al Weight Per Unit Length (lb/ft)	nal Size (#)	Actual Diameter (inch)	Area	(in ²)	Yield Load	Breaking Load		Stress si)		e Stress si)	Elongation	% Elongation	Remarks
Actual W		Nominal	Actual I	Nominal	Actual	(kN)	(kN)	Nominal	Actual	Nominal	Actual	(inch)	H %	2
1	0.382	3	0.378	0.110	0.112	30.00	46.20	61287	60095	94382	92546	1.4	17.5	3"/8
-	-	ı	-	-	-	1	-	-	-	-	-	-	-	-
-	-	ı	-	-	-	•	-	ı	ı	ı	-	-	-	-
-	1	ı	-	-	1	1	-	ı	1	ı	-	-	-	-
_	-	ı	-	-	-	-	-	-	-	ı	-	-	-	-
_	-	-	_	-	-	-	-	-	-	-	-	-	-	-

Note: Only 1 Samples for Tensile and 0 Samples for Bend test

Ве	end Test

Sub Divisional Officer

Public Health Engg: Sub Division Kasur

Construction of Sewerage & Drainage/Water Supply Khai & Adjoining Abadies

Tehsil & District Kasur

Reference # CED/TFL 7076 (Dr. Rizwan Riaz) Dated: 12-06-2025 Reference of the request letter # 149 Dated: 23-04-2025

Tension Test Report (Page-22/31)

Date of Test 13-06-2025 Gauge Length 8 inches

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

Sr. No.	al Weight Per Unit Length (lb/ft)	nal Size (#)	Actual Diameter (inch)	Area	Area (in²)		Breaking Load	Yield Stress (psi)			e Stress si)	Elongation	% Elongation	Remarks
	Actual Weig Length Nominal		Nominal	Actual	(kN)	(kN)	Nominal	Actual	Nominal	Actual	(inch)	% E	R	
1	0.375	3	0.375	0.110	0.11	30.50	46.50	62308	62153	94995	94757	1.4	17.5	3"/8
-	1	-	-	-	1	-	-	-	-	-	-	-	1	-
-	-	-	-	-	-	-	-	-	-	-	-	-	ı	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
_	-	-	-	-	-	-	-	-	-	-	-	-	-	-
_	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Note: Only 1 Samples for Tensile and 0 Samples for Bend test													

Sub Divisional Officer

Public Health Engg: Sub Division Kasur

Construction of Sewerage, Water Supply & Drainage and Filteration Plants etc at UC Khai

Tehsil & District Kasur

Reference # CED/TFL 7076 (Dr. Rizwan Riaz) Dated: 12-06-2025 Reference of the request letter # 148 Dated: 23-04-2025

Tension Test Report (Page-23/31)

Date of Test 13-06-2025 Gauge Length 8 inches

Sr. No.	al Weight Per Unit Length (lb/ft)	nal Size (#)	Actual Diameter (inch)	Area	(in ²)	Yield Load	Breaking Load		Stress si)		e Stress si)	Elongation	% Elongation	Remarks
	Actual Weig Length Nominal Actual Diam		Nominal	Actual	(kN)	(kN)	Nominal	Actual	Nominal	Actual	(inch)	% E	R	
1	0.371	3	0.373	0.110	0.109	31.00	46.70	63330	63868	95403	96214	1.5	18.8	3"/8
-	-	-	-	-	-	1	-	-	-	-	-	-	ı	-
_	1	-	-	-	-	1	-	1	-	ı	-	-	ı	-
_	-	-	-	-	-	-	-	-	-	-	-	-	-	-
_	-	-	-	-	-	-	-	-	-	-	-	-	-	-
_	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Note: Only 1 Samples for Tensile and 0 Samples for Bend test													

Bend Test

Sub Divisional Officer

Public Health Engg: Sub Division Kasur

Construction of Sewerage, Water Supply, Drainage and Filteration Plants etc at UC Khai Phase-II Tehsil & District Kasur

Reference # CED/TFL 7076 (Dr. Rizwan Riaz) Dated: 12-06-2025 Reference of the request letter # 24 Dated: 23-01-2025

Tension Test Report (Page-24/31)

Date of Test 13-06-2025 Gauge Length 8 inches

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

Sr. No.	al Weight Per Unit Length (lb/ft)	Nominal Size (#)	Actual Diameter (inch)	Area	Area (in²)		Breaking Load	Yield Stress (psi)				Elongation	% Elongation	Remarks
	Actual W Leng Nomii		Nominal	Actual	(kN)	(kN)	Nominal	Actual	Nominal	Actual	(inch)	% F	R	
1	0.375	3	0.374	0.110	0.11	30.50	46.70	62308	62273	95403	95349	1.4	17.5	3"/8
_	1	-	-	-	-	-	-	ı	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
_	-	-	-	-	-	-	-	-	-	-	-	-	-	-
_	-	-	-	-	-	-	-	-	-	-	-	-	-	-
_	-	•	-	-	-	-	-	-	-	-	-	-	-	-
	Note: Only 1 Samples for Tensile and 0 Samples for Bend test													

Sub Divisional Officer

Public Health Engg: Sub Division Kasur

Construction of Sullage Carrier, Sewerage and Drainage System at Sad Pur Phase-II and Adjoining Abac Tehsil & District Kasur

Reference # CED/TFL 7076 (Dr. Rizwan Riaz) Dated: 12-06-2025 Reference of the request letter # 157 Dated: 26-04-2025

Tension Test Report (Page-25/31)

Date of Test 13-06-2025 Gauge Length 8 inches

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

Sr. No.	al Weight Per Unit Length (lb/ft)	nal Size (#)	Actual Diameter (inch)	Area	(in ²)	Yield Load	Breaking Load		Stress si)		e Stress si)	Elongation	% Elongation	Remarks
	Actual Weig Length Nominal Actual Diam		Nominal	Actual	(kN)	(kN)	Nominal	Actual	Nominal	Actual	(inch)	% E	R	
1	0.373	3	0.374	0.110	0.11	30.50	45.20	62308	62460	92339	92564	1.3	16.3	3"/8
-	-	-	-	-	1	-	-	-	-	-	-	-	1	-
-	ı	•	-	-	ı	-	-	ı	-	ı	-	-	ı	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
_	-	-	-	-	-	-	-	-	-	-	-	-	-	-
_	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Note: Only 1 Samples for Tensile and 0 Samples for Bend test													



Sub Divisional Officer

Public Health Engg: Sub Division Kasur

Construction of Sullage Carrier, Sewerage and Drainage System at Said Pur and Adjoining Abadies Tehsil & District Kasur

Reference # CED/TFL 7076 (Dr. Rizwan Riaz) Dated: 12-06-2025 Reference of the request letter # 159 Dated: 26-04-2025

Tension Test Report (Page-26/31)

Date of Test 13-06-2025 Gauge Length 8 inches

Sr. No.	al Weight Per Unit Length (lb/ft)	nal Size (#)	Actual Diameter (inch)	Area	(in ²)	Yield Load	Breaking Load		Stress si)		te Stress si)	Elongation	% Elongation	Remarks
	Actual W Len	Nominal	Actual D	Nominal	Actual	(kN)	(kN)	Nominal	Actual	Nominal	Actual	(inch)	% E	R
1	0.380	3	0.377	0.110	0.112	30.00	45.70	61287	60419	93361	92038	1.6	20.0	3"/8
-	1	-	-	-	1	1	-	-	-	-	-	-	1	-
-	ı	•	-	-	ı	ı	-	ı	-	-	-	-	ı	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
_	-	-	-	-	-	•	-	-	-	-	-	-	ı	-
	Note: Only 1 Samples for Tensile and 0 Samples for Bend test													

Bend Test

Sub Divisional Officer

Public Health Engg: Sub Division Kasur

Construction of Sewerage, Water Supply, Drainage System at Filteration Plants etc at Town Committee Khudian Phase-III Tehsil & District Kasur

Reference # CED/TFL 7076 (Dr. Rizwan Riaz) Dated: 12-06-2025 Reference of the request letter # 122 Dated: 04-04-2025

Tension Test Report (Page-27/31)

Date of Test 13-06-2025 Gauge Length 8 inches

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

Sr. No.	al Weight Per Unit Length (lb/ft)	nal Size (#)	Actual Diameter (inch)	Area	(in²)	Yield Load	Breaking Load		Stress si)		e Stress si)	Elongation	Elongation % Elongation	
	Actual W Len	Nominal	Actual D	Nominal	Actual	(kN)	(kN)	Nominal	Actual	Nominal	Actual	(inch)	% E	Remarks
1	0.382	3	0.378	0.110	0.112	30.00	46.50	61287	60022	94995	93034	1.4	17.5	3"/8
-	1	ı	-	-	-	1	-	ı	-	-	-	-	ı	-
-	ı	•	-	-	-	ı	-	ı	-	-	ı	-	ı	-
-	ı	•	-	-	-	ı	-	ı	-	-	ı	-	ı	-
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				Note: (Only 1 S	Samples	for Tens	sile and 0	Samples	for Bend	test			

Sub Divisional Officer

Public Health Engg: Sub Division Kasur

Construction of Sullage Carrier, Sewerage and Drainage System at Aathil Pur Phathik to Jabomail and Adjoining Abadies Tehsil & District Kasur

Reference # CED/TFL 7076 (Dr. Rizwan Riaz) Dated: 12-06-2025 Reference of the request letter # 120 Dated: 04-04-2025

Tension Test Report (Page-28/31)

Date of Test 13-06-2025 Gauge Length 8 inches

Sr. No.	al Weight Per Unit Length (lb/ft)	nal Size (#)	Actual Diameter (inch)	Area	(in ²)	Yield Load	Breaking Load		Stress si)		e Stress si)	Elongation	% Elongation	Remarks
	Actual W Len	Nominal	Actual D	Nominal	Actual	(kN)	(kN)	Nominal	Actual	Nominal	Actual	(inch)	% E	R
1	0.376	3	0.375	0.110	0.11	30.70	46.20	62717	62435	94382	93957	1.5	18.8	3"/8
-	-	-	-	-	1	-	-	-	-	-	-	-	1	-
_	1	-	-	-	1	-	-	ı	-	-	-	-	ı	-
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_	-	-	-	-	-	-	-	-	-	-	-	-	ı	-
	Note: Only 1 Samples for Tensile and 0 Samples for Bend test													

Bend Test

Sub Divisional Officer

Public Health Engg: Sub Division Kasur

Construction of Sullage Carrier, Sewerage and Drainage System at Jabomail to Ruhi Nallah and Adjoining Abadies Tehsil & District Kasur

Reference # CED/TFL 7076 (Dr. Rizwan Riaz) Dated: 12-06-2025 Reference of the request letter # 121 Dated: 04-04-2025

Tension Test Report (Page-29/31)

Date of Test 13-06-2025 Gauge Length 8 inches

Sr. No.	al Weight Per Unit Length (lb/ft)	nal Size (#)	Actual Diameter (inch)	Area	(in ²)	Yield Load	Breaking Load		Stress si)		e Stress si)	Elongation	% Elongation	Remarks
	Actual W Len	Nominal	Actual D	Nominal	Actual	(kN)	(kN)	Nominal	Actual	Nominal	Actual	(inch)	% E	R
1	0.378	3	0.376	0.110	0.111	31.20	46.50	63739	63124	94995	94079	1.5	18.8	3"/8
-	-	-	-	-	1	1	-	-	-	-	-	-	ı	-
_	1	-	-	-	1	1	-	ı	-	-	-	-	ı	-
-	ı	•	-	-	ı	ı	-	ı	-	-	-	-	ı	-
_	-	-	-	-	-	-	-	_	-	-	-	-	-	-
_	-	-	-	-	-	-	-	-	-	-	-	-	ı	-
	Note: Only 1 Samples for Tensile and 0 Samples for Bend test													

Bend Test

Sub Divisional Officer

Public Health Engg: Sub Division Kasur

Construction of Sewerage, Water Supply, Drainage and Filteration Plants etc at UC Pial Kalan Tehsil & District Kasur

Reference # CED/TFL 7076 (Dr. Rizwan Riaz) Dated: 12-06-2025 Reference of the request letter # 125 Dated: 05-04-2025

Tension Test Report (Page-30/31)

Date of Test 13-06-2025 Gauge Length 8 inches

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

Sr. No.	al Weight Per Unit Length (lb/ft)	nal Size (#)	Actual Diameter (inch)	Area	(in ²)	Yield Load	Breaking Load		Stress si)	Ultimat (p	e Stress si)	Elongation	% Elongation	Remarks
	Actual W Len	Nominal	Actual D	Nominal	Actual	(kN)	(kN)	Nominal	Actual	Nominal	Actual	(inch)	% E	R
1	0.375	3	0.375	0.110	0.11	31.00	46.00	63330	63183	93973	93756	1.4	17.5	3"/8
-	-	ı	-	-	-	1	-	ı	ı	-	ı	1	1	-
-	ı	ı	-	ı	ı	ı	ı	ı	ı	ı	ı	-	ı	-
-	-	-	-	-	-	-	-	-	-	-	-	•	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Note: Only 1 Samples for Tensile and 0 Samples for Bend test													

Sub Divisional Officer

Public Health Engg: Sub Division Kasur

Construction of Sewerage, Water Supply, Drainage and Filteration Plants etc at Ganja Singh, Rangey Wala, Budh Singh Tehsil & District Kasur

Reference # CED/TFL 7076 (Dr. Rizwan Riaz) Dated: 12-06-2025 Reference of the request letter # 124 Dated: 05-04-2025

Tension Test Report (Page-31/31)

Date of Test 13-06-2025 Gauge Length 8 inches

Sr. No.	al Weight Per Unit Length (lb/ft)	nal Size (#)	Actual Diameter (inch)	Area	ı (in²)	Yield Load	Breaking Load		Stress si)		e Stress si)	Elongation	% Elongation	Remarks
	Actual W Len	Nominal	Actual D	Nominal	Actual	(kN)	(kN)	Nominal	Actual	Nominal	Actual	(inch)	% E	R
1	0.377	3	0.375	0.110	0.111	31.20	47.00	63739	63346	96016	95425	1.4	17.5	3"/8
-	-	-	-	-	-	1	-	-	-	-	-	-	ı	-
_	1	-	-	-	-	1	-	ı	-	-	-	-	ı	-
_	-	-	-	-	-	-	-	-	-	-	-	-	-	-
_	-	-	-	-	-	-	-	-	-	-	-	-	-	-
_	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Note: Only 1 Samples for Tensile and 0 Samples for Bend test													

Bend Test

Sub Divisional Officer

Public Health Engg: Sub Division Kasur-II

Construction of Sewerage / Water Supply & Drainage Scheme at Hari Haar & Adjoining Abadies Tehsil & District Kasur

Reference # CED/TFL 7077 (Dr. Rizwan Riaz) Dated: 12-06-2025 Reference of the request letter # 75 Dated: 03-03-2025

Tension Test Report (Page-1/2)

Date of Test 13-06-2025 Gauge Length 8 inches

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

/eight gth (I	nal Size (#)	iameter (Area	(in ²)	Yield Load	Breaking Load	Yield (p	Stress si)	Ultimat (p		Elongation	% Elongation	Remarks
Actual W	Nomi	Actual D	Nominal	Actual	(kN)	(kN)	Nominal	Actual	Nominal	Actual	(inch)	% E	R
0.377	3	0.376	0.110	0.111	30.00	45.50	61287	60831	92952	92260	1.3	16.3	3"/8
-	-	-	-	-	ı	-	1	1	-	1	-	-	-
-	-	-	1	-	1	-	ı	-	-	-	1	-	-
-	-	ı	ı	-	ı	ı	ı	ı	ı	ı	-	ı	-
-		-	-	-	-	-	ı	-	ı	ı	•	-	-
-	-	-	-	-	-	-	-	-	ı	-	-	-	-
	Ì	Vominal Vomi	Actual Weight Actual Weight Actual Weight Actual Diam	0.377	0.377	0.377	O.377 3 0.376 0.110 0.111 30.00 45.50	O.377 3 0.376 0.110 0.111 30.00 45.50 61287	O.377 3 0.376 0.110 0.111 30.00 45.50 61287 60831	Nominal Nomi	No No No No No No No No	O.377 3 O.376 O.110 O.111 O.00 O.150 O.1287 O.031 O.2952 O.2260 O.377 O.377	Columbia Columbia

Note: Only 1 Samples for Tensile and 0 Samples for Bend test

Bend Test

Sub Divisional Officer

Public Health Engg: Sub Division Kasur-II

Construction of Sewerage / Water Supply & Drainage Scheme at Lakhu Bariyar and Sahari Ottar & Adjoining Abadies Tehsil & District Kasur

Reference # CED/TFL 7077 (Dr. Rizwan Riaz) Dated: 12-06-2025 Reference of the request letter # 76 Dated: 03-03-2025

Tension Test Report (Page-2/2)

Date of Test 13-06-2025 Gauge Length 8 inches

Sr. No.	al Weight Per Unit Length (lb/ft)	nal Size (#)	Actual Diameter (inch)	Area (in²)		Area (in ²) Breaking Load Wield Load (isd) Breaking Load (isd)		Ultimate Stress (psi)		Elongation	% Elongation	Remarks		
	Actual W Len	Nominal	Actual D	Nominal	Actual	(kN)	(kN)	Nominal	Actual	Nominal	Actual	(inch)	% E	R
1	0.376	3	0.375	0.110	0.111	31.20	46.00	63739	63421	93973	93506	1.2	15.0	3"/8
-	-	-	-	-	-	1	-	-	-	-	-	-	1	-
-	1	-	-	-	-	1	-	ı	-	ı	-	-	ı	-
_	-	-	-	-	-	-	-	-	-	-	-	-	-	-
_	-	-	-	-	-	-	-	-	-	-	-	-	-	-
_	-	-	-	-	_	-	_	_	_	-	-	-	-	-
	Note: Only 1 Samples for Tensile and 0 Samples for Bend test													

Bend Test

Mr. Saad Bin Fareed (Project In-charge)
Opal Advertising and Interior
Construction Works of the Allied Bank Limited (ABL) Project in Sheikhupura

Reference # CED/TFL 7078 (Dr. Rizwan Riaz) Dated: 12-06-2025 Reference of the request letter # ABL/SHK/ST-001 Dated: 12-06-2025

Tension Test Report (Page-1/1)

Date of Test 13-06-2025 Gauge Length 8 inches

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

Sr. No.	al Weight Per Unit Length (lb/ft)	nal Size (#)	Actual Diameter (inch)	Area (in²)		Yield Load	Breaking Load	Yield Stress (psi)		Ultimate Stress (psi)		Elongation	% Elongation	Remarks
	Actual W Len	Nominal	Actual D	Nominal	Actual	(kN)	(kN)	Nominal	Actual	Nominal	Actual	(inch)	% E	R
1	0.417	3	0.395	0.110	0.123	33.50	45.70	68437	61389	93361	83746	1.6	20.0	-
-	-	ı	-	-	-	1	-	ı	ı	-	ı	1	1	-
-	ı	ı	-	ı	-	ı	ı	ı	ı	ı	ı	-	ı	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	1	-	-	-	-	1	-	-	-	-	-	1	-
	Note: Only 1 Samples for Tensile and 1 Samples for Bend test													

Bend Test
3 Bar Bend Test Through 180 Degree is Satisfactory

Sub Divisional Officer

Bhalwal Canal Sub Division at Sargodha

Concrete Lining of Rattokala Disty From RD 40+000 to 71+500 and RD 79+500 to 82+066 Tail Construction of Outlets of Rattokala Disty

Reference # CED/TFL 7079 (Dr. Rizwan Riaz) Dated: 12-06-2025 Reference of the request letter # 1061 Dated: 04-06-2025

Tension Test Report (Page-1/1)

Date of Test 13-06-2025 Gauge Length 8 inches

Sr. No.	al Weight Per Unit Length (lb/ft)	nal Size (#)	Actual Diameter (inch)	Area (in²)		Yield Load	Break in Closd (isd) (isd) (isd)			e Stress si)	Elongation	% Elongation	Remarks	
	Actual W Len	Nominal	Actual D	Nominal	Actual	(kN)	(kN)	Nominal	Actual	Nominal	Actual	(inch)	% E	R
1	0.350	3	0.362	0.110	0.103	27.70	42.00	56588	60500	85802	91732	1.2	15.0	3"/8
-	-	-	-	-	-	1	-	-	-	-	-	-	-	-
-	ı	ı	-	-	ı	ı	ı	ı	ı	ı	-	-	ı	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Note: Only 1 Samples for Tensile and 0 Samples for Bend test													

Bend Test

Senior Engineer,

PATRIP Project SRSP,

Construction of Patai and Ursoon Bridges in UC Ashrait Citral (PAK-SRSP-CHI-019) Creative Engineering Consultants (PMCSC)

Dated: 04-06-2025

Dated: 02-06-2025

Reference # CED/TFL 7071 (Dr. M. Rizwan Riaz)

Reference of the request letter # Nil

Tension Test Report (Page – 1/1)

Date of Test 13-06-2025

Description Steel Wire Rope Tensile Test

Sr. No.	Nominal Diameter	Measured weight	Breaking Load	Remarks / Coil No.	
	(mm)	(kg/m)	(kg)	Rema	
1	12	0.64	10300	-	
2	25	2.57	35400	-	
3	32	4.42	65200	-	
-	-	-	-	-	
-	-	-	-	-	
		Only three samples for Te	st		

Field Officer Site AI Abdullah Constructors (Pvt.) Ltd.

Reference # CED/TFL <u>7073 (Dr. Rizwan Riaz)</u> Dated: 11-06-2025 Reference of the request letter # AAC/MT-003/2025 Dated: 11-06-2025

Tension Test Report (Page -1/2)

Date of Test 13-06-2025 Gauge length 600 mm

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

Sr. No.	Nominal Diameter	Nominal Weight	Measured weight		trength e (6.3)	stre	aking ength se (6.2)	% Elongation	Remarks / Coil No.
	(mm)	(kg/1000m)	(kg/1000m)	(kg)	(kN)	(kg)	(kN)	%	Rema
1	9.53 (3/8")	432.0	446.0	10100	99.08	11000	107.91	>3.50	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	_	-	-	-
-	-	-	-	-	-	-	-	-	-

Only one sample for test

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

Field Officer Site AI Abdullah Constructors (Pvt.) Ltd.

Reference # CED/TFL 7073 (Dr. Rizwan Riaz)

Reference of the request letter # AAC/MT-003/2025

Dated: 11-06-2025

Dated: 11-06-2025

Tension Test Report (Page -2/2)

Date of Test 13-06-2025 Gauge length 8 inches

Description MS Wire Tensile Test

Sr. No.	Weight	Diameter/ Size (inch)		Area (in²)		Yield load	Breaking Load		Stress si)		te Stress si)	Elongation	% Elongation	Remarks
S	(lbs/ft)	Nominal (mm)	Actual	Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)	% E	R
1	0.103	5	0.196	-	0.030	800	1080	-	58270	-	78700	0.40	5.0	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	1	-	-	-	•	-	1	-	-	-	-	1	-
-	-	-	-	-	-	ı	-	-	-	-	-	-	ı	-
-	ı	ı	-	-	-	ı	-	ı	-	-	-	-	ı	-
-	ı	-	-	-	-	ı	-	-	-	-	-	-	ı	-
					No	te: only o	ne samp	le for ten	sile test					
							Bend T	est						
	Dona Test													

Mr. Muhammad Saleem (Material Engineer Nespak)

Nespak (Pvt.) Ltd.

Annual Development Program-Wasa (ADP-2024-25) Rainwater Management -Drainage Arrangement for Sore Point "at Tajpura (Amina & Babri), Lahore (Islamabad Premium Steel)

Reference # CED/TFL 7074 (Dr. Rizwan Riaz) Dated: 12-06-2025 Reference of the request letter # Nespak/WASA/ADP/UGWT/TP/ME/09 Dated: 24-05-2025

Tension Test Report (Page-1/1)

Date of Test 13-06-2025 Gauge Length 8 inches

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

Sr. No.	al Weight Per Unit Length (lb/ft)	nal Size (#)	Actual Diameter (inch)	Area (in²)		Area (in²)		Yield Load	Breaking Load	Breaking Coad (isq) (isq)				Elongation	% Elongation	Remarks
	Actual W Len	Nominal	Actual D	Nominal	Actual	(kN)	(kN)	Nominal	Actual	Nominal	Actual	(inch)	% E	R		
1	0.363	3	0.368	0.110	0.107	31.50	47.70	64351	66398	97446	100545	1.3	16.3	-		
2	0.359	3	0.366	0.110	0.105	31.00	46.20	63330	66074	94382	98472	1.0	12.5	-		
-	ı	ı	1	1	-	1	ı	1	1	1	-	-	ı	-		
-	-	-	-	1	-	1	-	-	-	-	-	-	1	-		
-	-	-	-	1	-	1	-	-	-	-	_	-	1	-		
-	-	-	1	-	-	-	-	-	-	-	-	-	ı	-		

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

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

Mr. Asim Chiragh (Resident Engineer)

Nespak (Pvt.) Ltd.

Restoration/Improvement of Lahore Sargodha Road (khanqah Dogran to District Boundary)

Length=9.5 KM (Section KM 0.00 to 1.33 KM) in Tehsil Safdarabad District Sheikhupura (Supreme Ste

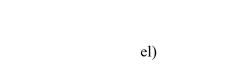
Reference # CED/TFL 7075 (Dr. Rizwan Riaz) Dated: 12-06-2025 Reference of the request letter # 4834/103/RRP-24/AC/93 Dated: 14-05-2025

Tension Test Report (Page-1/2)

Date of Test 13-06-2025 Gauge Length 8 inches

Sr. No.	ıl Weight Per Unit Length (lb/ft)	nal Size (#)	Actual Diameter (inch)	Area (in²)		Yield Load	Breaking Load	Yield Stress (psi)		Ultimate Stress (psi)		Elongation	% Elongation	Remarks
	Actual W Len	Nominal	Actual D	Nominal	Actual	(kN)	(kN)	Nominal	Actual	Nominal	Actual	(inch)	% E	R
1	0.400	3	0.387	0.110	0.117	32.50	52.20	66394	62214	106639	99925	1.1	13.8	-
2	0.382	3	0.378	0.110	0.112	25.50	37.00	52094	51004	75587	74006	1.5	18.8	-
-	1	-	-	-	-	1	-	ı	-	-	ı	-	1	-
-	ı	-	-	1	-	ı	-	1	-	-	ı	-	ı	-
-	•	-	-	-	-	•	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Note: Only 2 Samples for Tensile and 1 Samples for Bend test													

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



Mr. Asim Chiragh (Resident Engineer)

Nespak (Pvt.) Ltd.

Restoration/Improvement of Lahore Sargodha Road (khanqah Dogran to District Boundary) Length=9.5 (Section KM 0.00 to 1.33 KM) in Tehsil Safdarabad District Sheikhupura (Supreme Steel)

Reference # CED/TFL 7075 (Dr. Rizwan Riaz) Dated: 12-06-2025 4834/103/RRP-24/AC/93 Reference of the request letter # Dated: 14-05-2025

Tension Test Report (Page-2/2)

Date of Test 13-06-2025 Gauge Length 8 inches

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

Sr. No.	al Weight Per Unit Length (lb/ft)	nal Size (#)	Actual Diameter (inch)	Area	(in²)	Yield Load	Breaking Load		Stress si)		e Stress si)	Elongation	% Elongation	Remarks
	Actual W Len	Nominal	Actual D	Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)	H %	R
1	4.329	10	1.273	1.270	1.272	51000	53000	88507	88370	91978	91835	0.7	8.8	Dowel
2	4.329	10	1.273	1.270	1.272	51000	52400	88507	88357	90937	90782	0.7	8.8	Dowel
-	-	-	-	-	-	ı	-	ı	-	ı	-	-	ı	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
_	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Note: Only 2 Samples for Tensile and 1 Samples for Bend test													

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



Sub Divisional Officer

Public Health Engg: Sub Division Kasur

Construction of Sewerage, Water Supply, Drainage and Filteration Plants ETC at UC Mirali Hithar Tehsil & District Kasur

Reference # CED/TFL 7076 (Dr. Rizwan Riaz) Dated: 12-06-2025 Reference of the request letter # 153 Dated: 25-04-2025

Tension Test Report (Page-1/31)

Date of Test 13-06-2025 Gauge Length 8 inches

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

Sr. No.	al Weight Per Unit Length (lb/ft)	nal Size (#)	Actual Diameter (inch)	Area	(in²)	Yield Load	Breaking Load		Stress si)		e Stress si)	Elongation	% Elongation	Remarks
	Actual W Len	Nominal	Actual D	Nominal	Actual	(kN)	(kN)	Nominal	Actual	Nominal	Actual	(inch)	% E	R
1	0.380	3	0.377	0.110	0.112	31.00	46.50	63330	62441	94995	93661	1.4	17.5	3"/8
-	1	ı	-	-	-	•	-	-	-	-	ı	-	ı	-
-	ı	•	ı	ı	ı	ı	-	-	-	-	ı	-	ı	-
_	-	-	-	-	-	-	-	-	_	-	_	-	-	-
_	-	•	-	-	-	-	-	-	-	-	-	-	ı	-
-														
	Note: Only 1 Samples for Tensile and 0 Samples for Bend test													

Sub Divisional Officer

Public Health Engg: Sub Division Kasur

Construction of Sullage Carrier, Sewerage and Drainage System at Kacha Pacca, Sher Kot and Adjoining Abadies Tehsil & District Kasur

Reference # CED/TFL 7076 (Dr. Rizwan Riaz) Dated: 12-06-2025 Reference of the request letter # 158 Dated: 26-04-2025

Tension Test Report (Page-2/31)

Date of Test 13-06-2025 Gauge Length 8 inches

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

Sr. No.	al Weight Per Unit Length (lb/ft)	nal Size (#)	Actual Diameter (inch)	Area	(in ²)	Yield Load	Breaking Load		Stress si)		e Stress si)	Elongation	% Elongation	Remarks
91	Actual W Len	Nominal	Actual D	Nominal	Actual	(kN)	(kN)	Nominal	Actual	Nominal	Actual	(inch)	% E	R
1	0.379	3	0.377	0.110	0.112	31.20	46.50	63739	62876	94995	93710	1.3	16.3	3"/8
-	1	-	-	-	1	1	-	1	-	ı	ı	-	ı	-
-	ı	•	-	-	ı	ı	-	1	-	ı	ı	-	ı	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
_	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-														
	Note: Only 1 Samples for Tensile and 0 Samples for Bend test													

Sub Divisional Officer

Public Health Engg: Sub Division Kasur

Construction of Sewerage, Water Supply Drainage and Filteration Plants etc at UC DAO Key Tehsil & District Kasur

Reference # CED/TFL 7076 (Dr. Rizwan Riaz) Dated: 12-06-2025 Reference of the request letter # 127 Dated: 08-04-2025

Tension Test Report (Page-3/31)

Date of Test 13-06-2025 Gauge Length 8 inches

Sr. No.	al Weight Per Unit Length (lb/ft)	nal Size (#)	Actual Diameter (inch)	Area	(in²)	Yield Load	Breaking Load	Yield (p	Stress si)		e Stress si)	Elongation	% Elongation	Remarks
	Actual W Len	Nominal	Actual D	Nominal	Actual	(kN)	(kN)	Nominal	Actual	Nominal	Actual	(inch)	% E	R
1	0.384	3	0.379	0.110	0.113	30.20	47.00	61696	60118	96016	93562	1.5	18.8	3"/8
-	1	ı	-	-	-	1	-	ı	-	ı	-	-	1	-
-	ı	•	-	ı	-	ı	ı	ı	ı	ı	-	-	ı	ı
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Note: Only 1 Samples for Tensile and 0 Samples for Bend test													

Bend Test

Sub Divisional Officer

Public Health Engg: Sub Division Kasur

Construction of Sewerage, Water Supply Drainage and Filteration Plants etc at UC DAO Key Tehsil & District Kasur

Reference # CED/TFL 7076 (Dr. Rizwan Riaz) Dated: 12-06-2025 Reference of the request letter # 127 Dated: 08-04-2025

Tension Test Report (Page-3/31)

Date of Test 13-06-2025 Gauge Length 8 inches

Sr. No.	al Weight Per Unit Length (lb/ft)	nal Size (#)	Actual Diameter (inch)	Area	(in²)	Yield Load	Breaking Load	Yield (p	Stress si)		e Stress si)	Elongation	% Elongation	Remarks
	Actual W Len	Nominal	Actual D	Nominal	Actual	(kN)	(kN)	Nominal	Actual	Nominal	Actual	(inch)	% E	R
1	0.384	3	0.379	0.110	0.113	30.20	47.00	61696	60118	96016	93562	1.5	18.8	3"/8
-	1	ı	-	-	-	1	-	ı	-	ı	-	-	1	-
-	ı	•	-	ı	-	ı	ı	ı	ı	ı	-	-	ı	ı
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Note: Only 1 Samples for Tensile and 0 Samples for Bend test													

Bend Test

Sub Divisional Officer

Public Health Engg: Sub Division Kasur

Construction of Sewerage, Water Supply, Drainage and Filteration Plants etc at Town Committee Khudian Phase-II Tehsil & District Kasur

Reference # CED/TFL 7076 (Dr. Rizwan Riaz) Dated: 12-06-2025 Reference of the request letter # 123 Dated: 04-04-2025

Tension Test Report (Page-4/31)

Date of Test 13-06-2025 Gauge Length 8 inches

Sr. No.	al Weight Per Unit Length (lb/ft)	nal Size (#)	Actual Diameter (inch)	Area	(in ²)	Yield Load	Breaking Load		Stress si)		e Stress si)	Elongation	% Elongation	Remarks
	Actual W Len	Nominal	Actual D	Nominal	Actual	(kN)	(kN)	Nominal	Actual	Nominal	Actual	(inch)	% E	R
1	0.371	3	0.373	0.110	0.109	30.70	46.00	62717	63255	93973	94779	1.2	15.0	3"/8
-	-	-	-	-	-	ı	-	-	-	-	-	-	ı	-
-	-	-	-	-	-	•	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
_	- - - - - - - - - -													
	Note: Only 1 Samples for Tensile and 0 Samples for Bend test													

Bend Test

Sub Divisional Officer

Public Health Engg: Sub Division Kasur

Construction of Sewerage, Water Supply, Drainage and Filteration Plants etc at UC Rajo Wal Tehsil & District Kasur

Reference # CED/TFL 7076 (Dr. Rizwan Riaz) Dated: 12-06-2025 Reference of the request letter # 128 Dated: 08-04-2025

Tension Test Report (Page-6/31)

Date of Test 13-06-2025 Gauge Length 8 inches

Sr. No.	Actual Weight Per Unit Length (lb/ft)	nal Size (#)	Actual Diameter (inch)	Area	(in ²)	Yield Load	Breaking Load	Yield (p	Stress si)	Ultimat (p	e Stress si)	Elongation	% Elongation	Remarks
	Actual W Len	Nominal	Actual D	Nominal	Actual	(kN)	(kN)	Nominal	Actual	Nominal	Actual	(inch)	% E	R
1	0.374	3	0.374	0.110	0.11	30.70	45.70	62717	62829	93361	93527	1.4	17.5	3"/8
-	-	ı	-	-	ı	ı	-	1	1	-	1	-	-	-
-	1	ı	-	-	•	1	-	ı	ı	-	ı	-	1	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	ı	-	-	_	-	-	-
	Note: Only 1 Samples for Tensile and 0 Samples for Bend test													

Bend Test

Sub Divisional Officer

Public Health Engg: Sub Division Kasur

Construction of Sewerage, Water Supply, Drainage and Filteration Plants etc at UC Sanda

Tehsil & District Kasur

Reference # CED/TFL 7076 (Dr. Rizwan Riaz) Dated: 12-06-2025 Reference of the request letter # 152 Dated: 25-04-2025

Tension Test Report (Page-7/31)

Date of Test 13-06-2025 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)		viameter (inch)	Area	(in ²)	Yield Load	Breaking Load		Stress si)		e Stress si)	Elongation	% Elongation	Remarks
	Actual W Len	Nominal	Actual D	Nominal	Nominal Actual		(kN)	Nominal	Actual	Nominal	Actual	(inch)	% E	R
1	0.380	3	0.377	0.110			46.00	63330	62409	93973	92607	1.3	16.3	3"/8
-	1	-	-	1	-	1	-	-	-	-	-	-	1	-
-	ı	•	-	ı	-	ı	-	ı	-	ı	-	-	ı	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-			-	-	-	-	-	-	-	-
_	-	-	-	•	-	•	-	-	-	ı	-	-	ı	-
	Note: Only 1 Samples for Tensile and 0 Samples for Bend test													

Sub Divisional Officer

Public Health Engg: Sub Division Kasur

Construction of Sewerage, Water Supply, Drainage and Filteration Plants etc at Judicial Complex District Courts and District Bar Kasur.

Reference # CED/TFL 7076 (Dr. Rizwan Riaz) Dated: 12-06-2025 Reference of the request letter # 155 Dated: 26-04-2025

Tension Test Report (Page-8/31)

Date of Test 13-06-2025 Gauge Length 8 inches

Sr. No.	Actual Weight Per Unit Length (lb/ft) Nominal Size (#) Actual Diameter (inch)		iameter (inch)	Area	(in ²)	Yield Load	Breaking Load		Stress si)		e Stress si)	Elongation	% Elongation	Remarks
	Actual W Len	Nominal	Actual D	Nominal	Nominal Actual		(kN)	Nominal	Actual	Nominal	Actual	(inch)	% E	R
1	0.376	3	0.375	0.110	0.111	31.00	46.70	63330	62985	95403	94884	1.4	17.5	3"/8
-	-	-	-	-	-	1	-	-	-	-	-	-	ı	-
_	1	-	-	-	1	1	-	ı	-	ı	ı	-	ı	-
_	-	-	-	-	-	-	-	-	-	-	-	-	-	-
_	-	-	-	-	-	-	-	-	-	-	-	-	-	-
_	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Note: Only 1 Samples for Tensile and 0 Samples for Bend test													

Bend Test

Sub Divisional Officer

Public Health Engg: Sub Division Kasur

Construction of Sewerage, Water Supply, Drainage and Filteration Plants etc at Mandi Usman Wala Tehsil & District Kasur

Reference # CED/TFL 7076 (Dr. Rizwan Riaz) Dated: 12-06-2025 Reference of the request letter # 150 Dated: 24-04-2025

Tension Test Report (Page-9/31)

Date of Test 13-06-2025 Gauge Length 8 inches

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

Sr. No.	al Weight Per Unit Length (lb/ft) ominal Size (#) al Diameter (inch)		Actual Diameter (inch)	Area	(in ²)	Yield Load	Breaking Load		Stress si)		e Stress si)	Elongation	% Elongation	Remarks
	Actual W Len	Nominal	Actual D	Nominal	Nominal Actual		(kN)	Nominal	Actual	Nominal	Actual	(inch)	% E	R
1	0.374	3	0.374	0.110			46.20	61287	61355	94382	94486	1.4	17.5	3"/8
-	1	ı	-	-	1	-	-	ı	-	ı	ı	-	ı	-
-	ı	•	-	-	ı	-	-	ı	-	ı	ı	-	ı	-
_	-	-	-	-	-	-	-	-	-	-	-	-	-	-
_	-	-	-	-	-	-	-	-	-	-	-	-	-	-
_	-	-	-	-	-	-	-	-	-	ı	ı	-	ı	-
	Note: Only 1 Samples for Tensile and 0 Samples for Bend test													

Sub Divisional Officer

Public Health Engg: Sub Division Kasur

Construction of Sewerage, Water Supply, Drainage and Filteration Plants etc at Mandi Usman Wala Phase-II Tehsil & District Kasur

Reference # CED/TFL 7076 (Dr. Rizwan Riaz) Dated: 12-06-2025 Reference of the request letter # 151 Dated: 24-04-2025

Tension Test Report (Page-10/31)

Date of Test 13-06-2025 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)		iameter (inch)	Area	(in ²)	Yield Load	Breaking Load		Stress si)		e Stress si)	Elongation	% Elongation	Remarks
3 1	Actual W Len	Nominal	Actual D	Nominal	Nominal Actual		(kN)	Nominal	Actual	Nominal	Actual	(inch)	% E	R
1	0.387	3	0.381	0.110			47.50	65781	63570	97038	93776	1.4	17.5	3"/8
-	-	-	-	-	-	1	-	1	-	-	1	-	-	-
-	•	-	-	-	-	•	-	ı	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
_	-	-	-	-	-	-	-	_	_	-	-	-	-	-
_	_	-	-	-	-	-	-	-	_	-	-	-	-	-
	Note: Only 1 Samples for Tensile and 0 Samples for Bend test													

Sub Divisional Officer

Public Health Engg: Sub Division Kasur

Construction of Sewerage/Water Supply & Drainage Scheme at MC Mustafaabad (P)

Tehsil & District Kasur

Reference # CED/TFL 7076 (Dr. Rizwan Riaz) Dated: 12-06-2025 Reference of the request letter # 55 Dated: 17-02-2025

Tension Test Report (Page-11/31)

Date of Test 13-06-2025 Gauge Length 8 inches

Sr. No.	Actual Weight Per Unit Length (lb/ft)	74.		Area	(in ²)	Yield Load	Breaking Load	Yield (p	Stress si)		e Stress si)	Elongation	% Elongation	Remarks
	Actual W Len	Nomi	Actual D	Nominal	Actual	(kN)	(kN)	Nominal	Actual	Nominal	Actual	(inch)	% E	R
1	0.380	3	0.377	0.110			46.50	63330	62336	94995	93504	1.4	17.5	3"/8
-	-	-	-	-	-	1	-	-	-	-	-	-	1	-
-	1	1	-	-	-	1	1	ı	1	1	ı	-	ı	-
-	-	-	-	-	-	-	-	-	-	-	-	-	ı	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				Note: (Only 1 S	Samples	for Tens	sile and 0	Samples	for Bend	test			

Bend Test

Sub Divisional Officer

Public Health Engg: Sub Division Kasur

Construction of Sewerage/Water Supply & Drainage Scheme at Mouza Haveli Padhana Wali & Adjoining Abadies Tehsil & District Kasur

Reference # CED/TFL 7076 (Dr. Rizwan Riaz) Dated: 12-06-2025 Reference of the request letter # 95 Dated: 10-03-2025

Tension Test Report (Page-12/31)

Date of Test 13-06-2025 Gauge Length 8 inches

Sr. No.	al Weight Per Unit Length (lb/ft)	nal Size (#)	Actual Diameter (inch)	Area	(in²)	Yield Load	Breaking Load	Yield (p	Stress si)	Ultimat (p	e Stress si)	Elongation	% Elongation	Remarks
	Actual W Len	Nominal	Actual D	Nominal	Actual	(kN)	(kN)	Nominal	Actual	Nominal	Actual	(inch)		R
1	0.388	3	0.381	0.110			47.70	66394	64006	97446	93941	1.2	15.0	3"/8
-	-	-	-	1	-	1	-	-	-	-	-	-	-	-
-	ı	ı	-	ı	-	ı	ı	ı	ı	ı	ı	-	ı	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	_	-	-	-	-	-	-	-	-	-	-
				Note: (Only 1 S	Samples	for Tens	sile and 0	Samples	for Bend	test			

Bend Test

Sub Divisional Officer

Public Health Engg: Sub Division Kasur

Construction of Sewerage/Water Supply & Drainage Scheme at Mouza Jabbomail Adjoining Abadies Tehsil & District Kasur

Reference # CED/TFL 7076 (Dr. Rizwan Riaz) Dated: 12-06-2025 Reference of the request letter # 70 Dated: 26-02-2025

Tension Test Report (Page-13/31)

Date of Test 13-06-2025 Gauge Length 8 inches

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

Sr. No.	al Weight Per Unit Length (lb/ft) ominal Size (#) al Diameter (inch)		Actual Diameter (inch)	Area	(in ²)	Yield Load	Breaking Load		Stress si)		e Stress si)	Elongation	% Elongation	Remarks
	Actual W Len	Nominal	Actual D	Nominal	Nominal Actual		(kN)	Nominal	Actual	Nominal	Actual	(inch)	% E	R
1	0.373	3	0.374	0.110			45.70	61287	61457	93361	93619	1.4	17.5	3"/8
-	1	ı	-	-	1	-	-	-	-	ı	-	-	ı	-
-	ı	•	-	-	ı	-	-	-	-	ı	-	-	ı	-
-	-	-	-	-	-	-	-	-	-	-	-	-	ı	-
-	-	•	-	-	-	-	-	-	-	ı	-	-	ı	-
_	-	-	-	-	-	-	-	-	-	ı	-	-	ı	-
	Note: Only 1 Samples for Tensile and 0 Samples for Bend test													

Sub Divisional Officer

Public Health Engg: Sub Division Kasur

Construction of Sewerage/Water Supply & Drainage Scheme at Mustaabad (N)

Tehsil & District Kasur

Reference # CED/TFL 7076 (Dr. Rizwan Riaz) Dated: 12-06-2025 Reference of the request letter # 54 Dated: 17-02-2025

Tension Test Report (Page-14/31)

Date of Test 13-06-2025 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)		iameter (inch)	Area	(in ²)	Yield Load	Breaking Load		Stress si)		e Stress si)	Elongation	% Elongation	Remarks
	Actual W Len	Nominal	Actual D	Nominal	Nominal Actual		(kN)	Nominal	Actual	Nominal	Actual	(inch)	% E	R
1	0.379	3	0.377	0.110			47.00	63739	62949	96016	94826	1.3	16.3	3"/8
-	-	-	-	-	-	1	-	-	-	-	-	-	ı	-
_	1	-	-	-	1	1	-	ı	-	ı	ı	-	ı	-
-	ı	•	-	-	ı	ı	-	ı	-	ı	ı	-	ı	-
_	-	-	-	-			-	_	-	-	-	-	-	-
_	-	-	-	-	-	-	-	-	-	ı	ı	-	ı	-
	Note: Only 1 Samples for Tensile and 0 Samples for Bend test													

Sub Divisional Officer

Public Health Engg: Sub Division Kasur

Construction of Sewerage/Water Supply & Drainage Scheme at Dao Kay Kalan, Dao Kay Khaniana, Qil Daokay & Basti Fateh Muhammad & Adjoining AbadiesTehsil & District Kasur

Reference # CED/TFL 7076 (Dr. Rizwan Riaz) Dated: 12-06-2025 Reference of the request letter # 30 Dated: 30-01-2025

Tension Test Report (Page-15/31)

Date of Test 13-06-2025 Gauge Length 8 inches

Sr. No.	Actual Weight Per Unit Length (lb/ft) Nominal Size (#) Actual Diameter (inch)		iameter (inch)	Area	(in ²)	Yield Load	Breaking Load		Stress si)		e Stress si)	Elongation	% Elongation	Remarks
	Actual W Len	Nominal	Actual D	Nominal	Nominal Actual		(kN)	Nominal	Actual	Nominal	Actual	(inch)	% E	R
1	0.388	3	0.381	0.110			47.20	66803	64478	96425	93070	1.5	18.8	3"/8
-	1	-	-	-	1	-	-	-	-	-	-	-	1	-
-	ı	•	-	-	ı	ı	-	ı	-	ı	ı	-	ı	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
_	-	-	-	-			-	-	-	-	-	-	-	-
_	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Note: Only 1 Samples for Tensile and 0 Samples for Bend test													

Bend Test

Sub Divisional Officer

Public Health Engg: Sub Division Kasur

Construction of Sewerage/Water Supply & Drainage Scheme at U.C Charewan

Tehsil & District Kasur

Reference # CED/TFL 7076 (Dr. Rizwan Riaz) Dated: 12-06-2025 Reference of the request letter # 50 Dated: 15-02-2025

Tension Test Report (Page-16/31)

Date of Test 13-06-2025 Gauge Length 8 inches

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

Sr. No.	al Weight Per Unit Length (lb/ft)	nal Size (#)	Actual Diameter (inch)	Area (in²)		Yield Load	Breaking Load	Yield Stress (psi)		Ultimate Stress (psi)		Elongation	% Elongation	Remarks
	Actual W Len	Nominal	Actual D	Nominal	Actual	(kN)	(kN)	Nominal	Actual	Nominal	Actual	(inch)	% E	R
1	0.371	3	0.372	0.110	0.109	31.00	46.20	63330	63974	94382	95342	1.0	12.5	3"/8
-	-	-	-	-	-	1	-	-	-	-	-	-	ı	-
_	1	-	-	-	-	1	-	ı	-	-	-	-	ı	-
_	-	-	-	-	-	-	-	-	-	-	-	-	-	-
_	-	-	-	-	-	-	-	-	-	-	-	-	-	-
_	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Note: Only 1 Samples for Tensile and 0 Samples for Bend test													

Sub Divisional Officer

Public Health Engg: Sub Division Kasur

Construction of Sewerage/Water Supply & Drainage Scheme at Mandi Usman Wala & Adjoining Abadi Tehsil & District Kasur

Reference # CED/TFL 7076 (Dr. Rizwan Riaz) Dated: 12-06-2025 Reference of the request letter # 66 Dated: 25-02-2025

Tension Test Report (Page-17/31)

Date of Test 13-06-2025 Gauge Length 8 inches

Sr. No.	al Weight Per Unit Length (lb/ft)	nal Size (#)	Actual Diameter (inch)	Area (in²)		Yield Load	Breaking Load	Yield Stress (psi)		Ultimate Stress (psi)		Elongation	% Elongation	Remarks
	Actual W Len	Nominal	Actual D	Nominal	Actual	(kN)	(kN)	Nominal	Actual	Nominal	Actual	(inch)	% E	R
1	0.381	3	0.378	0.110	0.112	31.20	47.00	63739	62603	96016	94306	1.3	16.3	3"/8
-	-	-	-	-	-	1	-	-	-	-	-	-	ı	-
-	ı	•	-	-	-	ı	-	ı	-	-	-	-	ı	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
_	-	-	-	-	-	-	-	-	-	-	-	-	ı	-
	Note: Only 1 Samples for Tensile and 0 Samples for Bend test													

Bend Test

Sub Divisional Officer

Public Health Engg: Sub Division Kasur

Construction of Sewerage/Water Supply & Drainage Scheme at MC Kasur (Phase-II/N)

Tehsil & District Kasur

Reference # CED/TFL 7076 (Dr. Rizwan Riaz) Dated: 12-06-2025

Reference of the request letter # Nil Dated: -

Tension Test Report (Page-18/31)

Date of Test 13-06-2025 Gauge Length 8 inches

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

Sr. No.	al Weight Per Unit Length (lb/ft)	nal Size (#)	Actual Diameter (inch)	Area	Actual Actual		Yield Load Breaking Load		Stress si)	Ultimate Stress (psi)		Elongation	% Elongation	Remarks
	Actual W Len	Nominal	Actual D	Nominal			(kN)	Nominal	Actual	Nominal	Actual	(inch)	% E	R
1	0.375	3	0.375	0.110	0.11	29.70	45.70	60674	60539	93361	93152	1.5	18.8	3"/8
-	-	-	-	-	1	-	-	-	-	-	-	-	ı	-
-	1	-	-	-	-	-	-	ı	-	-	-	-	ı	-
_	-	-	-	-	-	-	-	-	-	-	-	-	-	-
_	-	-	-	-	-	-	-	-	-	-	-	-	-	-
_	-	-	-	-			-	-	-	-	-	-	-	-
				Note: (Only 1 S	Samples	for Tens	sile and 0	Samples	for Bend	test			

Sub Divisional Officer

Public Health Engg: Sub Division Kasur

Construction of Sewerage/Water Supply & Drainage Scheme at Ali Garh, Salamat Pura, Islampura, Sheraywala Khou, Latif Pura, Basti Vanaikan Jatuwanwala Qabrastan Tehsil & District Kasur

Reference # CED/TFL 7076 (Dr. Rizwan Riaz) Dated: 12-06-2025 Reference of the request letter # 25 Dated: 24-01-2025

Tension Test Report (Page-19/31)

Date of Test 13-06-2025 Gauge Length 8 inches

Sr. No.	al Weight Per Unit Length (lb/ft)	nal Size (#)	Actual Diameter (inch)	Area	Area (in²)		Breaking Load		Stress si)	Ultimate Stress (psi)		Elongation	% Elongation	Remarks
	Actual W Len	Nominal	Actual D	Nominal	Nominal Actual		(kN)	Nominal	Actual	Nominal	Actual	(inch)	% E	R
1	0.377	3	0.375	0.110	0.111	29.50	45.20	60266	59873	92339	91738	1.3	16.3	3"/8
-	-	-	-	-	-	1	-	-	-	-	-	-	ı	-
_	1	-	-	-	-	1	-	ı	-	-	-	-	ı	-
_	-	-	-	-	-	-	-	-	-	-	-	-	-	-
_	-	-	-	-	-	-	-	-	-	-	-	-	-	-
_	-	-	-	_	_		_	_	_	-	-	-	-	-
				Note: (Only 1 S	Samples	for Tens	sile and 0	Samples	for Bend	test			

Bend Test

Sub Divisional Officer

Public Health Engg: Sub Division Kasur

Construction of Sewerage/Water Supply & Drainage Scheme at MC Kasur (Phase-I/N)

Tehsil & District Kasur

Reference # CED/TFL 7076 (Dr. Rizwan Riaz) Dated: 12-06-2025 Reference of the request letter # 26 Dated: 25-01-2025

Tension Test Report (Page-20/31)

Date of Test 13-06-2025 Gauge Length 8 inches

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

/eight Per Unit gth (lb/ft)	nal Size (#)	iameter (inch)	Area	Area (in²) Actual		Yield Load Breaking Load		Yield Stress (psi)		Ultimate Stress (psi)			Remarks
Actual W Len	Nomi	Actual D	Nominal			(kN)	Nominal	Actual	Nominal	Actual	(inch)	% E	R
0.379	3	0.376	0.110	0.111	30.50	46.20	62308	61592	94382	93297	1.4	17.5	3"/8
-	-	-	1	-	1	-	1	-	1	1	-	-	-
-	-	ı	ı	-	1	ı	ı	ı	ı	ı	-	ı	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-			-	-	-	-	-	-	-	-
-	-	-	-			-	-	-	-	-	-	-	-
	Actual Weight Per Length (lb/ft)	Actual Weight Per Constitution 1975 1		Actual Weight Per Per	Actual Meight Per Actual Meight Per Actual Meight Per Per Actual Meight Per Compared to the compare	Area (in²) Area (in²) Actual Meight Ber	Area (in²) Area (in²) Actual Meight Beraking Actual Meight Beraking Actual Diameter (i) Actual Meight Beraking Actual Diameter (i) Actual	0.379 3 0.376 0.110 0.111 30.50 46.20 62308	0.379 3 0.376 0.110 0.111 30.50 46.20 62308 61592	0.379 3 0.376 0.110 0.111 30.50 46.20 62308 61592 94382	No.379 3 0.376 0.110 0.111 30.50 46.20 62308 61592 94382 93297	0.379 3 0.376 0.110 0.111 30.50 46.20 62308 61592 94382 93297 1.4	86 Part Part Part Part Part Part Part Part

Note: Only 1 Samples for Tensile and 0 Samples for Bend test

Bend Test

Sub Divisional Officer

Public Health Engg: Sub Division Kasur

Construction of Sewerage, Water Supply, Drainage and Filteration Plants etc at UC Beroon Khudian Tehsil & District Kasur

Reference # CED/TFL 7076 (Dr. Rizwan Riaz) Dated: 12-06-2025 Reference of the request letter # 156 Dated: 26-04-2025

Tension Test Report (Page-21/31)

Date of Test 13-06-2025 Gauge Length 8 inches

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

Sr. No.	al Weight Per Unit Length (lb/ft)	nal Size (#)	Actual Diameter (inch)	Area	Nominal Actual		Breaking Load		Stress si)		e Stress si)	Elongation	% Elongation	Remarks
	Actual W Len	Nominal	Actual D	Nominal			(kN)	Nominal	Actual	Nominal	Actual	(inch)	₩ .	R
1	0.382	3	0.378	0.110	0.112	30.00	46.20	61287	60095	94382	92546	1.4	17.5	3"/8
-	-	ı	-	-	-	1	-	-	-	-	-	-	-	-
-	-	ı	-	-	-	•	-	ı	-	ı	-	-	-	-
-	-	ı	-	-	-	-	-	ı	-	ı	-	-	-	-
_	-	ı	-	-			-	-	-	ı	-	-	-	-
_	-	-	_	-	-	-	-	-	-	-	-	-	-	-

Note: Only 1 Samples for Tensile and 0 Samples for Bend test

Ве	end Test

Sub Divisional Officer

Public Health Engg: Sub Division Kasur

Construction of Sewerage & Drainage/Water Supply Khai & Adjoining Abadies

Tehsil & District Kasur

Reference # CED/TFL 7076 (Dr. Rizwan Riaz) Dated: 12-06-2025 Reference of the request letter # 149 Dated: 23-04-2025

Tension Test Report (Page-22/31)

Date of Test 13-06-2025 Gauge Length 8 inches

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

Sr. No.	al Weight Per Unit Length (lb/ft)	nal Size (#)	Actual Diameter (inch)	Area	Actual Actual		Breaking Load		Stress si)	Ultimate Stress (psi)		Elongation	% Elongation	Remarks
	Actual W Len	Nominal	Actual D	Nominal			(kN)	Nominal	Actual	Nominal	Actual	(inch)	₩ %	R
1	0.375	3	0.375	0.110	0.11	30.50	46.50	62308	62153	94995	94757	1.4	17.5	3"/8
-	-	-	-	-	1	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
_	-	-	-	-	-	-	-	-	-	-	-	-	-	-
_	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				Note: (Only 1 S	Samples	for Tens	sile and 0	Samples	for Bend	test			

Sub Divisional Officer

Public Health Engg: Sub Division Kasur

Construction of Sewerage, Water Supply & Drainage and Filteration Plants etc at UC Khai

Tehsil & District Kasur

Reference # CED/TFL 7076 (Dr. Rizwan Riaz) Dated: 12-06-2025 Reference of the request letter # 148 Dated: 23-04-2025

Tension Test Report (Page-23/31)

Date of Test 13-06-2025 Gauge Length 8 inches

Sr. No.	al Weight Per Unit Length (lb/ft)	nal Size (#)	Actual Diameter (inch)	Area	Actual Actual		Breaking Load		Stress si)	Ultimate Stress (psi)		Elongation	% Elongation	Remarks
	Actual W Len	Nominal	Actual D	Nominal			(kN)	Nominal	Actual	Nominal	Actual	(inch)	% E	R
1	0.371	3	0.373	0.110	0.109	31.00	46.70	63330	63868	95403	96214	1.5	18.8	3"/8
-	-	-	-	-	-	1	-	-	-	-	-	-	1	-
-	1	-	-	-	1	1	-	ı	-	-	-	-	ı	-
_	-	-	-	-	-	-	-	-	-	-	-	-	-	-
_	-	-	-	-	-	-	-	-	-	-	-	-	-	-
_	-	-	-	-			-	-	-	-	-	-	-	-
				Note: (Only 1 S	Samples	for Tens	sile and 0	Samples	for Bend	test			

Bend Test

Sub Divisional Officer

Public Health Engg: Sub Division Kasur

Construction of Sewerage, Water Supply, Drainage and Filteration Plants etc at UC Khai Phase-II Tehsil & District Kasur

Reference # CED/TFL 7076 (Dr. Rizwan Riaz) Dated: 12-06-2025 Reference of the request letter # 24 Dated: 23-01-2025

Tension Test Report (Page-24/31)

Date of Test 13-06-2025 Gauge Length 8 inches

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

Sr. No.	al Weight Per Unit Length (lb/ft)	Nominal Size (#)	Actual Diameter (inch)	Area	Area (in²)		Yield Load Breaking Load		Stress si)	Ultimate Stress (psi)		Elongation	% Elongation	Remarks
	Actual W Len	Nomi	Actual D	Nominal	Nominal Actual		(kN)	Nominal Actual		Nominal	Actual	(inch)	% F	R
1	0.375	3	0.374	0.110	0.11	30.50	46.70	62308	62273	95403	95349	1.4	17.5	3"/8
_	1	-	-	-	-	-	-	ı	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
_	-	-	-	-	-	-	-	-	-	-	-	-	-	-
_	-	-	-	-	-	-	-	-	-	-	-	-	-	-
_	-	•	-	-	-	-	-	-	-	-	-	-	-	-
				Note: (Only 1 S	Samples	for Tens	sile and 0	Samples	for Bend	test			

Sub Divisional Officer

Public Health Engg: Sub Division Kasur

Construction of Sullage Carrier, Sewerage and Drainage System at Sad Pur Phase-II and Adjoining Abac Tehsil & District Kasur

Reference # CED/TFL 7076 (Dr. Rizwan Riaz) Dated: 12-06-2025 Reference of the request letter # 157 Dated: 26-04-2025

Tension Test Report (Page-25/31)

Date of Test 13-06-2025 Gauge Length 8 inches

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

Sr. No.	al Weight Per Unit Length (lb/ft)	nal Size (#)	Actual Diameter (inch)	Area	Actual Actual Actual		Yield Load Breaking Load		Stress si)	Ultimate Stress (psi)		Elongation	% Elongation	Remarks
	Actual W Len	Nominal	Actual D	Nominal			(kN)	Nominal	Actual	Nominal	Actual	(inch)	% E	R
1	0.373	3	0.374	0.110	0.11	30.50	45.20	62308	62460	92339	92564	1.3	16.3	3"/8
-	-	-	-	-	1	-	-	-	-	-	-	-	ı	-
_	1	-	-	-	-	-	-	1	-	-	-	-	ı	-
-	ı	•	-	-	ı	-	-	1	-	-	-	-	ı	-
_	-	-	-	-	-	-	-	-	-	-	-	-	-	-
_	-	-	-	-	-	-	-	-	-	-	-	-	ı	-
				Note: (Only 1 S	Samples	for Tens	sile and 0	Samples	for Bend	test			



Sub Divisional Officer

Public Health Engg: Sub Division Kasur

Construction of Sullage Carrier, Sewerage and Drainage System at Said Pur and Adjoining Abadies Tehsil & District Kasur

Reference # CED/TFL 7076 (Dr. Rizwan Riaz) Dated: 12-06-2025 Reference of the request letter # 159 Dated: 26-04-2025

Tension Test Report (Page-26/31)

Date of Test 13-06-2025 Gauge Length 8 inches

Sr. No.	al Weight Per Unit Length (lb/ft)	nal Size (#)	Actual Diameter (inch)	Area	(in ²)	Yield Load	Breaking Load		Stress si)		te Stress si)	Elongation	% Elongation	Remarks
	Actual W Len	Nominal	Actual D	Nominal	Actual	(kN)	(kN)	Nominal	Actual	Nominal	Actual	(inch)	% E	R
1	0.380	3	0.377	0.110	0.112	30.00	45.70	61287	60419	93361	92038	1.6	20.0	3"/8
-	1	-	-	-	1	1	-	-	-	-	-	-	1	-
-	ı	•	-	-	ı	ı	-	ı	-	-	-	-	ı	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
_	-	-	-	-	-	•	-	-	-	-	-	-	ı	-
	Note: Only 1 Samples for Tensile and 0 Samples for Bend test													

Bend Test

Sub Divisional Officer

Public Health Engg: Sub Division Kasur

Construction of Sewerage, Water Supply, Drainage System at Filteration Plants etc at Town Committee Khudian Phase-III Tehsil & District Kasur

Reference # CED/TFL 7076 (Dr. Rizwan Riaz) Dated: 12-06-2025 Reference of the request letter # 122 Dated: 04-04-2025

Tension Test Report (Page-27/31)

Date of Test 13-06-2025 Gauge Length 8 inches

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

Sr. No.	al Weight Per Unit Length (lb/ft)	nal Size (#)	Actual Diameter (inch)	Area	(in²)	Yield Load	Breaking Load		Stress si)		e Stress si)	Elongation	Elongation % Elongation	
	Actual W Len	Nominal	Actual D	Nominal	Actual	(kN)	(kN)	Nominal	Actual	Nominal	Actual	(inch)	% E	Remarks
1	0.382	3	0.378	0.110	0.112	30.00	46.50	61287	60022	94995	93034	1.4	17.5	3"/8
-	1	ı	-	-	-	1	-	ı	-	-	-	-	ı	-
-	ı	•	-	-	-	ı	-	ı	-	-	ı	-	ı	-
-	ı	•	-	-	-	ı	-	ı	-	-	ı	-	ı	-
-	-	•	-	_	-	•	-	-	-	-	-	-	ı	-
-	-	ı	-	_	-	-	-	-	_	-	-	-	ı	-
				Note: (Only 1 S	Samples	for Tens	sile and 0	Samples	for Bend	test			

Sub Divisional Officer

Public Health Engg: Sub Division Kasur

Construction of Sullage Carrier, Sewerage and Drainage System at Aathil Pur Phathik to Jabomail and Adjoining Abadies Tehsil & District Kasur

Reference # CED/TFL 7076 (Dr. Rizwan Riaz) Dated: 12-06-2025 Reference of the request letter # 120 Dated: 04-04-2025

Tension Test Report (Page-28/31)

Date of Test 13-06-2025 Gauge Length 8 inches

Sr. No.	al Weight Per Unit Length (lb/ft)	nal Size (#)	Actual Diameter (inch)	Area	(in ²)	Yield Load	Breaking Load		Stress si)		e Stress si)	Elongation	% Elongation	Remarks
	Actual W Len	Nominal	Actual D	Nominal	Actual	(kN)	(kN)	Nominal	Actual	Nominal	Actual	(inch)	% E	R
1	0.376	3	0.375	0.110	0.11	30.70	46.20	62717	62435	94382	93957	1.5	18.8	3"/8
-	-	-	-	-	1	-	-	-	-	-	-	-	1	-
_	1	-	-	-	1	-	-	ı	-	-	-	-	ı	-
_	-	-	-	-	-	-	-	-	-	-	-	-	-	-
_	-	-	-	-	-	-	-	-	-	-	-	-	ı	-
_	-	-	-	-	-	-	-	-	-	-	-	-	ı	-
	Note: Only 1 Samples for Tensile and 0 Samples for Bend test													

Bend Test

Sub Divisional Officer

Public Health Engg: Sub Division Kasur

Construction of Sullage Carrier, Sewerage and Drainage System at Jabomail to Ruhi Nallah and Adjoining Abadies Tehsil & District Kasur

Reference # CED/TFL 7076 (Dr. Rizwan Riaz) Dated: 12-06-2025 Reference of the request letter # 121 Dated: 04-04-2025

Tension Test Report (Page-29/31)

Date of Test 13-06-2025 Gauge Length 8 inches

Sr. No.	al Weight Per Unit Length (lb/ft)	nal Size (#)	Actual Diameter (inch)	Area	(in ²)	Yield Load	Breaking Load		Stress si)		e Stress si)	Elongation	% Elongation	Remarks
	Actual W Len	Nominal	Actual D	Nominal	Actual	(kN)	(kN)	Nominal	Actual	Nominal	Actual	(inch)	% E	R
1	0.378	3	0.376	0.110	0.111	31.20	46.50	63739	63124	94995	94079	1.5	18.8	3"/8
-	-	-	-	-	1	1	-	-	-	-	-	-	ı	-
_	1	-	-	-	1	1	-	ı	-	-	-	-	ı	-
-	ı	•	-	-	ı	ı	-	ı	-	-	-	-	ı	-
_	-	-	-	-	-	-	-	_	-	-	-	-	-	-
_	-	-	-	-	-	-	-	-	-	-	-	-	ı	-
	Note: Only 1 Samples for Tensile and 0 Samples for Bend test													

Bend Test

Sub Divisional Officer

Public Health Engg: Sub Division Kasur

Construction of Sewerage, Water Supply, Drainage and Filteration Plants etc at UC Pial Kalan Tehsil & District Kasur

Reference # CED/TFL 7076 (Dr. Rizwan Riaz) Dated: 12-06-2025 Reference of the request letter # 125 Dated: 05-04-2025

Tension Test Report (Page-30/31)

Date of Test 13-06-2025 Gauge Length 8 inches

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

Sr. No.	al Weight Per Unit Length (lb/ft)	nal Size (#)	Actual Diameter (inch)	Area	(in ²)	Yield Load	Breaking Load		Stress si)	Ultimat (p	e Stress si)	Elongation	% Elongation	Remarks
	Actual W Len	Nominal	Actual D	Nominal	Actual	(kN)	(kN)	Nominal	Actual	Nominal	Actual	(inch)	% E	R
1	0.375	3	0.375	0.110	0.11	31.00	46.00	63330	63183	93973	93756	1.4	17.5	3"/8
-	-	ı	-	-	-	1	-	1	ı	-	ı	1	1	-
-	ı	ı	-	ı	ı	ı	ı	ı	ı	ı	ı	-	ı	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Note: Only 1 Samples for Tensile and 0 Samples for Bend test													

Sub Divisional Officer

Public Health Engg: Sub Division Kasur

Construction of Sewerage, Water Supply, Drainage and Filteration Plants etc at Ganja Singh, Rangey Wala, Budh Singh Tehsil & District Kasur

Reference # CED/TFL 7076 (Dr. Rizwan Riaz) Dated: 12-06-2025 Reference of the request letter # 124 Dated: 05-04-2025

Tension Test Report (Page-31/31)

Date of Test 13-06-2025 Gauge Length 8 inches

Sr. No.	al Weight Per Unit Length (lb/ft)	nal Size (#)	Actual Diameter (inch)	Area	ı (in²)	Yield Load	Breaking Load		Stress si)		e Stress si)	Elongation	% Elongation	Remarks
	Actual W Len	Nominal	Actual D	Nominal	Actual	(kN)	(kN)	Nominal	Actual	Nominal	Actual	(inch)	% E	R
1	0.377	3	0.375	0.110	0.111	31.20	47.00	63739	63346	96016	95425	1.4	17.5	3"/8
-	-	-	-	-	-	1	-	-	-	-	-	-	ı	-
_	1	-	-	-	-	1	-	ı	-	-	-	-	ı	-
_	-	-	-	-	-	-	-	-	-	-	-	-	-	-
_	-	-	-	-	-	-	-	-	-	-	-	-	-	-
_	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Note: Only 1 Samples for Tensile and 0 Samples for Bend test													

Bend Test

Sub Divisional Officer

Public Health Engg: Sub Division Kasur-II

Construction of Sewerage / Water Supply & Drainage Scheme at Hari Haar & Adjoining Abadies Tehsil & District Kasur

Reference # CED/TFL 7077 (Dr. Rizwan Riaz) Dated: 12-06-2025 Reference of the request letter # 75 Dated: 03-03-2025

Tension Test Report (Page-1/2)

Date of Test 13-06-2025 Gauge Length 8 inches

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

/eight gth (I	nal Size (#)	iameter (Area	(in ²)	Yield Load	Breaking Load	Yield (p	Stress si)	Ultimat (p		Elongation	% Elongation	Remarks
Actual W	Nomi	Actual D	Nominal	Actual	(kN)	(kN)	Nominal	Actual	Nominal	Actual	(inch)	% E	R
0.377	3	0.376	0.110	0.111	30.00	45.50	61287	60831	92952	92260	1.3	16.3	3"/8
-	-	-	-	-	1	-	1	1	1	1	-	-	-
-	-	-	1	-	1	-	1	-	-	-	1	-	-
-	-	ı	ı	-	1	ı	ı	ı	ı	ı	-	ı	-
-		-	-	-	-	-	ı	-	ı	ı	-	-	-
-	-	-	-	-	-	-	-	-	ı	-	-	-	-
	Ì	Vominal Vomi	Actual Weight Actual Weight Actual Weight Actual Diam	0.377	0.377	0.377	O.377 3 0.376 0.110 0.111 30.00 45.50	O.377 3 0.376 0.110 0.111 30.00 45.50 61287	O.377 3 0.376 0.110 0.111 30.00 45.50 61287 60831	Nominal Nomi	No No No No No No No No	O.377 3 O.376 O.110 O.111 O.00 O.150 O.1287 O.031 O.2952 O.2260 O.377 O.377	Columbia Columbia

Note: Only 1 Samples for Tensile and 0 Samples for Bend test

Bend Test

Sub Divisional Officer

Public Health Engg: Sub Division Kasur-II

Construction of Sewerage / Water Supply & Drainage Scheme at Lakhu Bariyar and Sahari Ottar & Adjoining Abadies Tehsil & District Kasur

Reference # CED/TFL 7077 (Dr. Rizwan Riaz) Dated: 12-06-2025 Reference of the request letter # 76 Dated: 03-03-2025

Tension Test Report (Page-2/2)

Date of Test 13-06-2025 Gauge Length 8 inches

Sr. No.	al Weight Per Unit Length (lb/ft)	nal Size (#)	Actual Diameter (inch)	iameter (inch)	iameter (inch)	Area	Area (in²)		Breaking Load		Stress si)		e Stress si)	Elongation	% Elongation	Remarks
	Actual W Len	Nominal		Nominal	Actual	(kN)	(kN)	Nominal	Actual	Nominal	Actual	(inch)	% E	2		
1	0.376	3	0.375	0.110	0.111	31.20	46.00	63739	63421	93973	93506	1.2	15.0	3"/8		
-	1	-	-	-	1	-	-	-	-	-	-	-	1	-		
-	ı	•	-	-	ı	ı	-	ı	-	-	-	-	ı	-		
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
-	-	-	-	-	-	-	-	-	-	-	-	-	ı	-		
_	-	-	-	-	-	-	-	-	-	-	-	-	ı	-		
	Note: Only 1 Samples for Tensile and 0 Samples for Bend test															

Bend Test

Mr. Saad Bin Fareed (Project In-charge)
Opal Advertising and Interior
Construction Works of the Allied Bank Limited (ABL) Project in Sheikhupura

Reference # CED/TFL 7078 (Dr. Rizwan Riaz) Dated: 12-06-2025 Reference of the request letter # ABL/SHK/ST-001 Dated: 12-06-2025

Tension Test Report (Page-1/1)

Date of Test 13-06-2025 Gauge Length 8 inches

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

Sr. No.	al Weight Per Unit Length (lb/ft)	nal Size (#)	Actual Diameter (inch)	Area (in²)		Yield Load	Yield Load Breaking Load (b)				Elongation	% Elongation	Remarks	
	Actual W Len	Nominal	Actual D	Nominal	Actual	(kN)	(kN)	Nominal	Actual	Nominal	Actual	(inch)	% E	R
1	0.417	3	0.395	0.110	0.123	33.50	45.70	68437	61389	93361	83746	1.6	20.0	-
-	-	ı	-	-	-	1	-	1	ı	-	ı	1	1	-
-	ı	ı	-	ı	-	ı	ı	ı	ı	ı	ı	-	ı	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
_	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Note: Only 1 Samples for Tensile and 1 Samples for Bend test													

Bend Test
3 Bar Bend Test Through 180 Degree is Satisfactory

Sub Divisional Officer

Bhalwal Canal Sub Division at Sargodha

Concrete Lining of Rattokala Disty From RD 40+000 to 71+500 and RD 79+500 to 82+066 Tail Construction of Outlets of Rattokala Disty

Reference # CED/TFL 7079 (Dr. Rizwan Riaz) Dated: 12-06-2025 Reference of the request letter # 1061 Dated: 04-06-2025

Tension Test Report (Page-1/1)

Date of Test 13-06-2025 Gauge Length 8 inches

Sr. No.	ee	nal Size (#)	Actual Diameter (inch)	Area (in²)		Yield Load	Breaking Load	Yield Stress (psi)		Ultimate Stress (psi)		Elongation	% Elongation	Remarks
91		Nomi	Actual L	Nominal	Actual	(kN)	(kN)	Nominal	Actual	Nominal	Actual	(inch)	H %	8
1	0.350	3	0.362	0.110	0.103	27.70	42.00	56588	60500	85802	91732	1.2	15.0	3"/8
-	1	ı	-	-	-	•	-	-	-	ı	-	-	ı	-
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-	-	•	-	-	-	-	-	-	-	ı	-	-	ı	-
-	-	-	-	-	-	-	-	-	-	ı	-	-	ı	-
	Note: Only 1 Samples for Tensile and 0 Samples for Bend test													

Bend Test