T.E.C **Test Performed By:** Dr. /Engr. Nauman Khurram

Transtech Engineering Corporation, haveli Bahadar Shah, Jhang

Client Reference: TEC/UET/19071701 **Dated:** 22-07-2019

SOM Lab Ref: CED/SOM/1160(Page-1/1) **Dated:** 22-07-2019

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

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

S.No.	Weight	Dia.		Area		Yield Load	Ultimate Load	Yield Stress		Ult. Stress		Elongation	Gauge Length	%age Elongation	Remarks
		Nominal	Calculated	Nominal	Calculated			(according to nominal area)	(according to measured area)	(according to nominal area)	(according to measured area)				
	kg/m	mm	mm	mm^2	mm^2	kN	kN	MPa	MPa	MPa	MPa	mm	mm	%	
1	2.438	20	19.90	314	311	151.20	222.70	481	487	709	717	37.5	200	18.8	15581
2	2.437	20	19.88	314	310	149.00	221.00	474	481	703	712	40.0	200	20.0	15581
3	2.427	20	19.84	314	309	141.50	211.70	450	458	674	685	35.0	200	17.5	15582
4	2.429	20	19.85	314	309	142.70	212.50	454	462	676	687	32.5	200	16.3	15582
5	2.421	20	19.82	314	308	143.00	213.20	455	464	679	692	35.0	200	17.5	15583
6	2.421	20	19.82	314	308	140.50	212.00	447	456	675	688	37.5	200	18.8	15583
7	2.426	20	19.84	314	309	141.00	213.20	449	457	679	690	37.5	200	18.8	15585
8	2.441	20	19.90	314	311	141.20	213.00	449	455	678	685	35.0	200	17.5	15585
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Witnessed By: Basharat Ali, Assistant Engineer, NESPAK Lahore

BEND TEST:

20mm	Sample bend through 180 degrees Satisfactorily without any crack
20mm	Sample bend through 180 degrees Satisfactorily without any crack
20mm	Sample bend through 180 degrees Satisfactorily without any crack
20mm	Sample bend through 180 degrees Satisfactorily without any crack

Note:-

Only Twelve Samples Received and Tested

Note: Please always confirm the results of above report on web www.uet-civil.edu.pk

Arsalan Arshad **Test Performed By:** **Dr. /Engr. S.Asad Ali Gillani**
Project Manager, Depac (Const. of Dr. Maqbool Ahmad Block King Edward Medical University (KEMU) Lahore)

Client Reference: **T-03/22/18** **SOM Lab Ref:** **1155(Page-1/1)**
Dated: **22-07-2019** **Dated:** **22-07-2019**

Test: **Tension Test & Bend Test** **Test Specification:** **ASTM-A-615**
Gauge Length: **8 inch** **Sample Type:** **Deformed Bar**

S.No.	Weight	Dia.		Area		Yield Load	Ultimate Load	Yield Stress		Ult. Stress		Elongation	Gauge Length	%age Elongation	Remarks
		Nominal	Calculated	Nominal	Calculated			(according to nominal area)	(according to measured area)	(according to nominal area)	(according to measured area)				
	lb/ft	#	in	in^2	in^2	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	2.696	8	1.004	0.79	0.792	25.74	34.83	71860	71680	97240	97000	1.40	8.0	17.5	
2	1.440	6	0.734	0.44	0.423	14.29	18.06	71640	74520	90540	94180	1.30	8.0	16.3	
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Witnessed By: **M Jawad Ahmad**

BEND TEST:

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

Note:-

Only Four Samples Received and Tested

Note: Please always confirm the results of above report on web www.uet-civil.edu.pk

Israr ullah Khan
Resident Engineer,

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

Client Reference: **House No 70-Ajinnah Town, Quetta**
Dated: **18-07-2019**

SOM Lab Ref: **1156(Page-1/1)**
Dated: **22-07-2019**

Test: **Tension Test & Bend Test** **Test Specification:** **ASTM-A-615**
Gauge Length: **8 inch** **Sample Type:** **Deformed BarAmbrrli Steel)**

S.No.	Weight	Dia.		Area		Yield Load	Ultimate Load	Yield Stress		Ult. Stress		Elongation	Gauge Length	%age Elongation	Remarks
		Nominal	Calculated	Nominal	Calculated			(according to nominal area)	(according to measured area)	(according to nominal area)	(according to measured area)				
	lb/ft	#	in	in^2	in^2	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	1.470	6	0.742	0.44	0.432	13.81	18.81	69240	70520	94270	96020	1.50	8.0	18.8	
2	1.471	6	0.742	0.44	0.432	14.50	19.18	72660	74000	96160	97940	1.60	8.0	20.0	
3	1.040	5	0.624	0.31	0.306	9.12	12.97	64910	65760	92250	93460	1.50	8.0	18.8	
4	1.055	5	0.628	0.31	0.310	9.12	13.58	64910	64910	96600	96600	1.50	8.0	18.8	
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BEND TEST:

# 6	Sample bend through 180 degrees Satisfactorily without any crack
# 5	Sample bend through 180 degrees Satisfactorily without any crack

Note:-

Only Six Samples Received and Tested

Note: Please always confirm the results of above report on web www.uet-civil.edu.pk

Furqan Ali Malik **Test Performed By:** **Dr. /Engr.** **M Irfan ul Hassan**

Chief Resident Engineer, Package -I, NESPAK, (Pvt) Ltd. Lahore

Client Reference: **4042/13/FAM/Steel-068** **SOM Lab Ref:** **11157(Page-1/1)**

Dated: **17-07-2019** **Dated:** **22-07-2019**

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

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

S.No.	Weight	Dia.		Area		Yield Load	Ultimate Load	Yield Stress		Ult. Stress		Elongation	Gauge Length	%age Elongation	Remarks
		Nominal	Calculated	Nominal	Calculated			(according to nominal area)	(according to measured area)	(according to nominal area)	(according to measured area)				
	lb/ft	#	in	in^2	in^2	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	0.662	4	0.498	0.20	0.195	6.60	8.43	72730	74600	92960	95350	1.00	8.0	12.5	
2	0.660	4	0.497	0.20	0.194	6.19	8.46	68230	70340	93300	96190	1.20	8.0	15.0	
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BEND TEST:

# 4	Sample bend through 180 degrees Satisfactorily without any crack

Note:-

Only Three Samples Received and Tested

Note: Please always confirm the results of above report on web www.uet-civil.edu.pk

Maj Adnan khalid® **Test Performed By:** **Dr. /Engr.** **S. Asad Ali Gillani**

Dy Dir MTL, External Elec Works (U/G) IVY Green Sector-Z, - DHA , Ph-VIII - (M/S NLC)

Client Reference: **408/241/E/Lab/645/765** **SOM Lab Ref:** **1159(Page-1/1)**

Dated: **22-07-2019** **Dated:** **22-07-2019**

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

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

S.No.	Weight	Dia.		Area		Yield Load	Ultimate Load	Yield Stress		Ult. Stress		Elongation	Gauge Length	%age Elongation	Remarks
		Nominal	Calculated	Nominal	Calculated			(according to nominal area)	(according to measured area)	(according to nominal area)	(according to measured area)				
	lb/ft	#	in	in^2	in^2	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	1.478	6	0.743	0.44	0.434	15.19	20.08	76130	77190	100660	102050	1.10	8.0	13.8	
2	1.469	6	0.742	0.44	0.432	14.75	19.62	73940	75310	98360	100180	1.10	8.0	13.8	
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BEND TEST:

# 6	Sample bend through 180 degrees Satisfactorily without any crack

Note:-

Only Three Samples Received and Tested

Note: Please always confirm the results of above report on web www.uet-civil.edu.pk

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

Planning & Control Engineer, MS Construction, Mukhtar Sons, (Pvt) Ltd, Lahore

Client Reference: nil **SOM Lab Ref:** 1161(P-1/1)

Dated: 22-7-2019 **Dated:** 22-07-2019

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

Gauge Length: 8 inch **Sample Type:** Bar

S.No.	Weight	Dia.		Area		Yield Load	Ultimate Load	Yield Stress		Ult. Stress		Elongation	Gauge Length	%age Elongation	Remarks
		Nominal	Calculated	Nominal	Calculated			(according to nominal area)	(according to measured area)	(according to nominal area)	(according to measured area)				
	lb/ft	#	in	in^2	in^2	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	1.022	5	0.618	0.31	0.300	11.18	13.27	79560	82210	94420	97570	1.10	8.0	13.8	
2	1.015	5	0.616	0.31	0.298	10.86	13.05	77240	80350	92830	96570	1.20	8.0	15.0	
3	0.672	4	0.501	0.20	0.197	5.91	8.79	65200	66190	96900	98370	1.30	8.0	16.3	
4	0.667	4	0.500	0.20	0.196	5.93	8.79	65420	66760	96900	98880	1.30	8.0	16.3	
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BEND TEST:

# 5	Sample bend through 180 degrees Satisfactorily without any crack
# 4	Sample bend through 180 degrees Satisfactorily without any crack

Note:-

Only Six Samples Received and Tested

Note: Please always confirm the results of above report on web www.uet-civil.edu.pk