



**STRUCTURAL ENGINEERING DIVISION**  
**Test Floor Laboratory**  
**Department of Civil Engineering**  
**University of Engineering and Technology Lahore, 54890**  
**Pakistan. Ph: 92-42-99029202**

To,  
District Controller of Purchase/ (Inspection)  
P. R. General Stores Moghalpura

Reference # CED/TFL **32504** (Dr. Usman Akmal)  
Reference of the request letter # CSF/511/P/2018/R.S.

Dated: 25-01-2019

Dated: 22-01-2019

**Tension Test Report** (Page – 1/1)

Date of Test 31-01-2019  
Gauge length 2 inches  
Description M.S Sheet Steel Strip Tensile Test as per ASTM A36

Sr. No.	Designation	Size of Strip	X Section Area	Yield load	Breaking Load	Yield Stress	Ultimate Stress	Elongation	% Elongation	Remarks
1	A	25.00x1.50	37.50	720	1240	188.35	324.38	0.90	45.00	
2	C	25.00x1.50	37.50	760	1200	198.82	313.92	0.90	45.00	
3	D	25.00x1.50	37.50	760	1180	198.82	308.69	0.90	45.00	
4	E	24.90x1.45	36.11	760	1180	206.50	320.61	0.90	45.00	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
<b>Only Four Samples for Tensile and Three Samples for Bend Test</b>										
<b>Bend Test</b>										
Strip Taken from Steel Plate Bend Test Through 180° is Satisfactory (F)										
Strip Taken from Steel Plate Bend Test Through 180° is Satisfactory (G)										
Strip Taken from Steel Plate Bend Test Through 180° is Satisfactory (H)										

**I/C Testing Laboratoires**  
**UET Lahore, Pakistan.**

Note:

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Ref: CED/TFL/01/32505

Dated: 25-01-19

To  
Resident Engineer  
Techno Consultant International (Pvt) Ltd  
CPEC Package-1

Subject: **TESTING OF DUCTILE IRON GRATING, (AASHTO-M-306)**

Reference to your letter No. RE/CPEC/DIK/2019/440, dated 09.01.2019 on the subject cited above. One Ductile Iron Grating as received by us has been tested. The results are tabulated as under.

<b>Sr. No.</b>	<b>Sample</b>	<b>Result</b>
<b>1</b>	<b>Ductile Iron Grating</b>	<b>No Cracks and permanent deflection was observed at specified load</b>

**I/C Testing Laboratories**  
**UET Lahore, Pakistan.**

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To,  
Resident Engineer  
RENARDET S.A ((M-4), Package-II)  
Construction of Faisalabad-Khanewal Motorway (M-4) Project, Package-II, Jamani-Shorkot,  
Section 2B (M/s China Railway First Group, Ltd)

Reference # CED/TFL **32507** (Dr. Usman Akmal)  
Reference of the request letter # RE/M-4/2B/2019/525

Dated: 25-01-2019  
Dated: 24-01-2019

**Tension Test Report** (Page – 1/2)

Date of Test 31-01-2019  
Gauge length 2 inches  
Description G.I Corrugated Sheet Steel Strip Tensile Test

Sr. No.	Designation	Size of Strip	X Section Area	Yield load	Breaking Load	Yield Stress	Ultimate Stress	Elongation	% Elongation	Remarks
1	Sheet	25.30x0.95	24.04	1000	1160	408.15	473.46	0.60	30.00	
2	Sheet	25.20x0.95	23.94	1000	1120	409.77	458.95	0.50	25.00	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
<b>Only Two Samples for Tensile Test</b>										
<b>Bend Test</b>										

**I/C Testing Laboratoires**  
**UET Lahore, Pakistan.**

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**University of Engineering and Technology Lahore, 54890**  
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To,  
Resident Engineer  
RENARDET S.A ((M-4), Package-II)  
Construction of Faisalabad-Khanewal Motorway (M-4) Project, Package-II, Jamani-Shorkot,  
Section 2B (M/s China Railway First Group, Ltd)

Reference # CED/TFL **32507** (Dr. Usman Akmal)  
Reference of the request letter # RE/M-4/2B/2019/525

Dated: 25-01-2019  
Dated: 24-01-2019

**Size Test Report** (Page – 2/2)  
Date of Test 31-01-2019  
Gauge length -----  
Description G.I Corrugated Sheet Size Test

Sr. No.	Designation	Thickness	Remark
		(mm)	
1	Sheet	0.95	
-	-	-	
-	-	-	
-	-	-	
-	-	-	
-	-	-	
-	-	-	
-	-	-	
-	-	-	
<b>Only One Sample for Test</b>			

**I/C Testing Laboratoires**  
**UET Lahore, Pakistan.**

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**University of Engineering and Technology Lahore, 54890**  
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To,  
 Maintenance Engineer-I  
 University of the Punjab  
 Construction of Department of Islamic Studies at QAC  
 (M/s Zaeem & Brithers)(PSC)

Reference # CED/TFL **32527** (Dr. Usman Akmal)  
 Reference of the request letter # R-177-CE

Dated: 30-01-2019  
 Dated: 28-01-2019

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

Date of Test 31-01-2019  
 Gauge length 8 inches  
 Description Deformed Steel Bar Tensile Test as per ASTM-A615

Sr. No.	Weight (lbs/ft)	Diameter/ Size (inch)		Area (in <sup>2</sup> )		Yield load (kg)	Breaking Load (kg)	Yield Stress (psi)		Ultimate Stress (psi)		Elongation (inch)	% Elongation	Grad
		Nominal	Actual	Nominal	Actual			Nominal	Actual	Nominal	Actual			
1	0.382	3	0.378	0.11	0.112	2500	3500	50100	49130	70200	68800	1.70	21.3	40
2	0.390	3	0.382	0.11	0.115	2600	3800	52100	49950	76200	73100	1.40	17.5	
3	0.386	3	0.380	0.11	0.113	3700	5300	74200	71860	106200	103000	1.20	15.0	60
4	0.383	3	0.379	0.11	0.113	3600	5200	72200	70430	104200	101800	1.20	15.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only four samples for tensile test</b>														
Bend Test														

**I/C Testing Laboratoires**  
**UET Lahore, Pakistan.**

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**Test Floor Laboratory**  
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To,  
 Resident Engineer  
 NESPAK  
 Punjab Government Servants Housing Scheme, Sialkot  
 (M/s Arshad & Co)(Afco Steel)  
 Reference # CED/TFL **32529** (Dr. Waseem Abbas)  
 Reference of the request letter # 3730/31/SYA/09/467

Dated: 30-01-2019  
 Dated: 26-01-2019

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

Date of Test 31-01-2019  
 Gauge length 8 inches  
 Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight (lbs/ft)	Diameter/ size		Area (in <sup>2</sup> )		Yield load (kg)	Breaking Load (kg)	Yield Stress (psi)		Ultimate Stress (psi)		Elongation (inch)	% Elongation	Remarks
		Nominal (#)	Actual (inch)	Nominal	Actual			Nominal	Actual	Nominal	Actual			
1	0.398	3	0.386	0.11	0.117	4300	5100	86200	81020	102200	96100	1.10	13.8	
2	0.378	3	0.376	0.11	0.111	4500	5250	90200	89390	105200	104300	0.90	11.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only two samples for tensile and one sample for bend test</b>														
Bend Test														
#3 Bar Bend Test Through 180° is Satisfactory														

**I/C Testing Laboratoires**  
**UET Lahore, Pakistan.**

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To,  
 Sub Divisional Officer  
 PHE Sub Division  
 Gujranwala  
 (Construction of PCC/ RCC/ Drainage at Shaheen abad, District Gujranwala)

Reference # CED/TFL **32531** (Dr. Usman Akmal)  
 Reference of the request letter # 498/T

Dated: 30-01-2019  
 Dated: 13-11-2018

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

Date of Test 31-01-2019  
 Gauge length 8 inches  
 Description Deformed Steel Bar Tensile Test as per ASTM-A615

Sr. No.	Weight (lbs/ft)	Diameter/ Size (inch)		Area (in <sup>2</sup> )		Yield load (kg)	Breaking Load (kg)	Yield Stress (psi)		Ultimate Stress (psi)		Elongation (inch)	% Elongation	Remarks
		Nominal	Actual	Nominal	Actual			Nominal	Actual	Nominal	Actual			
1	0.345	3/8	0.359	0.11	0.101	3800	4600	76200	82590	92200	100000	0.75	9.4	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only one sample for tensile test</b>														
Bend Test														

**I/C Testing Laboratoires**  
**UET Lahore, Pakistan.**

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To,  
M/S K.T Brothers  
Lahore  
(AMS)

Reference # CED/TFL **32532** (Dr. Usman Akmal)  
Reference of the request letter # Nil

Dated: 30-01-2019  
Dated: 30-01-2019

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

Date of Test 31-01-2019  
Gauge length 8 inches  
Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight (lbs/ft)	Diameter/ Size (inch)		Area (in <sup>2</sup> )		Yield load (kg)	Breaking Load (kg)	Yield Stress (psi)		Ultimate Stress (psi)		Elongation (inch)	% Elongation	Remarks
		Nominal	Actual	Nominal	Actual			Nominal	Actual	Nominal	Actual			
1	0.370	3/8	0.372	0.11	0.109	3700	5600	74200	75010	112300	113600	1.00	12.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only one sample for tensile and one sample for bend test</b>														
Bend Test														
3/8" Dia Bar Bend Test Through 180° is Satisfactory														

**I/C Testing Laboratoires**  
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To,  
 Project Coordinator  
 Banu Mukhtar (Pvt) Ltd  
 "Interloop Limited, Manga Raiwind Road"

Reference # CED/TFL **32533** (Dr. Usman Akmal)  
 Reference of the request letter # BML/PC/INTERLOOP/050

Dated: 30-01-2019  
 Dated: 25-01-2019

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

Date of Test 31-01-2019  
 Gauge length 8 inches  
 Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight (lbs/ft)	Diameter/ size		Area (in <sup>2</sup> )		Yield load (kg)	Breaking Load (kg)	Yield Stress (psi)		Ultimate Stress (psi)		Elongation (inch)	% Elongation	Remarks
		Nominal (#)	Actual (inch)	Nominal	Actual			Nominal	Actual	Nominal	Actual			
1	0.430	3	0.401	0.11	0.126	4200	5400	84200	73320	108200	94300	1.00	12.5	
2	0.429	3	0.400	0.11	0.126	4200	5400	84200	73500	108200	94500	1.00	12.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only two samples for tensile and one sample for bend test</b>														
Bend Test														
#3 Bar Bend Test Through 180° is Satisfactory														

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