



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

To,
M/S Majeed Associates (Pvt) Ltd.
Lahore
(Allied Bank Ltd. Bahria Orchard Lahore)

Reference # CED/TFL **37650** (Dr. Rizwan Azam)
Reference of the request letter # Nil

Dated: 03-01-2022
Dated: 03-01-2022

Tension Test Report (Page -1/1)

Date of Test 10-01-2022
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 ²)		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	0.356	3/8	0.365	0.11	0.105	3300	4400	66200	69580	88200	92800	0.90	11.3	Afco Steel
2	0.359	3/8	0.367	0.11	0.106	3800	4700	76200	79280	94200	98100	0.80	10.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample for bend test														
Bend Test														
3/8" Dia Bar Bend Test Through 180° is Satisfactory														

I/C Testing Laboratoires
UET Lahore, Pakistan.

Note:

- 1- You can See your reports On Internet in the following web site
http://www.uet.edu.pk/faculties/facultiesinfo/civil/index.html?RID=testing_reports
- 2- The above results pertain to sample /samples supplied to this laboratory.
- 3- Sealed sample / Unsealed sample / Marked sample/Signed Samples



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

To,
 Manager Procurement
 Ravi Conatruction Company
 SW Sugar Mills (Private) Limited, Sillanwali

Reference # CED/TFL **37651** (Dr. Rizwan Azam)
 Reference of the request letter # UET/RCC/001/22

Dated: 03-01-2022
 Dated: 03-01-2022

Tension Test Report (Page -1/1)

Date of Test 10-01-2022
 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 ²)		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	0.361	3	0.368	0.11	0.106	3200	5200	64200	66390	104200	107900	1.10	13.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only one sample for tensile and one sample for bend test														
Bend Test														
#3 Bar Bend Test Through 180° is Satisfactory														

I/C Testing Laboratoires
UET Lahore, Pakistan.

Note:

- 1- You can See your reports On Internet in the following web site
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STRUCTURAL ENGINEERING DIVISION
Test Floor Laboratory
Department of Civil Engineering
University of Engineering and Technology Lahore, 54890
Pakistan. Ph: 92-42-99029202

To,
 Project Manager
 Union Developers
 Construction of Union Luxury Apartments, Etihad Twon, Lahore

Reference # CED/TFL **37653** (Dr. Rizwan Azam)
 Reference of the request letter # UA/SO/2021/012

Dated: 04-01-2022
 Dated: 03-01-2022

Tension Test Report (Page -1/1)

Date of Test 10-01-2022
 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 ²)		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	0.377	3	0.376	0.11	0.111	4500	5400	90200	89400	108200	107300	0.70	8.8	Afco Steel
2	0.378	3	0.376	0.11	0.111	4400	5400	88200	87270	108200	107100	0.90	11.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample for bend test														
Bend Test														
#3 Dia Bar Bend Test Through 180° is Satisfactory														

I/C Testing Laboratoires
UET Lahore, Pakistan.

Note:

- 1- You can See your reports On Internet in the following web site
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STRUCTURAL ENGINEERING DIVISION
Test Floor Laboratory
Department of Civil Engineering
University of Engineering and Technology Lahore, 54890
Pakistan. Ph: 92-42-99029202

To,
 Sub Divisional Officer
 Highway Sub Division
 Bhalwal

(Construction of / Rehabilitation of Road from Buchan Kalan to Phalia Ahmad Nagar Road via Mela and Naseerpur Kalan I/C Link from Halalpur Bhabhra Road to Maila via Loran Wala and Marray Length 20.75 km (Section 0.00 to 11.47 km) in District Sargodha)

Reference # CED/TFL **37654** (Dr. Rizwan Azam)

Dated: 04-01-2022

Reference of the request letter # 05/SB

Dated: 03-01-2022

Tension Test Report (Page -1/1)

Date of Test 10-01-2022

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 ²)		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	0.356	3/8	0.365	0.11	0.105	3600	4800	72200	75760	96200	101100	0.60	7.5	
2	0.357	3/8	0.365	0.11	0.105	3600	5000	72200	75650	100200	105100	0.90	11.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample for bend test														
Bend Test														
3/8" Dia Bar Bend Test Through 180° is Satisfactory														

I/C Testing Laboratoires
UET Lahore, Pakistan.

Note:

- 1- You can See your reports On Internet in the following web site
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- 2- The above results pertain to sample /samples supplied to this laboratory.
- 3- Sealed sample / Unsealed sample / Marked sample/Signed Samples



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

To,
 Const. Manager
 Villa Construction Group
 Meazan Dairy Pattoki

Reference # CED/TFL **37656** (Dr. Rizwan Azam)
 Reference of the request letter # Nil

Dated: 04-01-2022
 Dated: 03-01-2022

Tension Test Report (Page -1/1)

Date of Test 10-01-2022
 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 ²)		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	0.366	3/8	0.370	0.11	0.108	3300	5000	66200	67650	100200	102500	1.10	13.8	
2	0.363	3/8	0.368	0.11	0.107	3300	5000	66200	68240	100200	103400	1.10	13.8	
3	0.366	3/8	0.370	0.11	0.107	3300	5000	66200	67670	100200	102600	1.20	15.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only three samples for tensile and three samples for bend test														
Bend Test														
3/8" Dia Bar Bend Test Through 180° is Satisfactory														
3/8" Dia Bar Bend Test Through 180° is Satisfactory														
3/8" Dia Bar Bend Test Through 180° is Satisfactory														

I/C Testing Laboratoires
UET Lahore, Pakistan.

Note:

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- 3- Sealed sample / Unsealed sample / Marked sample/Signed Samples



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

To,
 Engineer REC
 The Help Care Society (TAC)
 Construction of Extension Block (The Help Care Society) TAC School Johar Town Lahore

Reference # CED/TFL **37657** (Dr. Rizwan Azam)
 Reference of the request letter # JTC EXT-1

Dated: 04-01-2022
 Dated: 04-01-2022

Tension Test Report (Page -1/1)

Date of Test 10-01-2022
 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 ²)		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	0.420	3/8	0.396	0.11	0.123	4400	5400	88200	78590	108200	96500	0.90	11.3	Afco Steel
2	0.416	3/8	0.395	0.11	0.122	4300	5300	86200	77460	106200	95500	0.70	8.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample for bend test														
Bend Test														
3/8" Dia Bar Bend Test Through 180° is Satisfactory														

I/C Testing Laboratoires
UET Lahore, Pakistan.

Note:

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

To,
 Sr. Accountant and Admin In Charge
 QUBE
 P&D Private Limited
 Koh-e-Noor City, Faisalabad

Reference # CED/TFL **37658** (Dr. Rizwan Azam)
 Reference of the request letter # Nil

Dated: 04-01-2022
 Dated: 03-01-2022

Tension Test Report (Page -1/1)

Date of Test 10-01-2022
 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 ²)		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	0.390	3	0.382	0.11	0.115	3200	3900	64200	61510	78200	75000	1.80	22.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only one sample for tensile and one sample for bend test														
Bend Test														
#3 Bar Bend Test Through 180° is Satisfactory														

I/C Testing Laboratoires
UET Lahore, Pakistan.

Note:

- 1- You can See your reports On Internet in the following web site
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STRUCTURAL ENGINEERING DIVISION
Test Floor Laboratory
Department of Civil Engineering
University of Engineering and Technology Lahore, 54890
Pakistan. Ph: 92-42-99029202

To,
M/S Rana Associates
Lahore
(Markazi Jamia Safia Rehmania Lebanat-el-Islam (Udhowal Kalan Gujrat))

Reference # CED/TFL **37659** (Dr. Rizwan Azam)
Reference of the request letter # Nil

Dated: 04-01-2022
Dated: 04-01-2022

Tension Test Report (Page -1/1)

Date of Test 10-01-2022
Gauge length 8 inches
Description Deformed Steel Bar Tensile Test as per ASTM-A615

Sr. No.	Weight (lbs/ft)	Diameter/ Size (inch)		Area (in ²)		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	0.366	3/8	0.370	0.11	0.108	3100	5000	62200	63460	100200	102400	1.20	15.0	
2	0.371	3/8	0.373	0.11	0.109	3200	5000	64200	64640	100200	101000	1.30	16.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile test														
Bend Test														

I/C Testing Laboratoires
UET Lahore, Pakistan.

Note:

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

To,
 Sub Divisional Officer
 Buildings Sub Sub Division
 Chakwal
 (Establishment of University of Chakwal ADP No. 66 for The Year 2020-21 – Construction of Female Student Hostel / Student Services & Medical Centre Ground / First Floor with Sdditional Items & Architectural Features)(One at Student Services & Medical Centre)

Reference # CED/TFL **37660** (Dr. Rizwan Azam)
 Reference of the request letter # 491/CKL

Dated: 04-01-2022
 Dated: 02-12-2021

Tension Test Report (Page -1/1)

Date of Test 10-01-2022
 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 ²)		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	3600	4800	72200	73000	96200	97400	1.30	16.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only one sample for tensile and one sample for bend test														
Bend Test														
3/8" Dia Bar Bend Test Through 180° is Satisfactory														

I/C Testing Laboratoires
UET Lahore, Pakistan.

Note:

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2. The above results pertain to sample /samples supplied to this laboratory.
- 3- Sealed sample / Unsealed sample / Marked sample/Signed Samples



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

To,
 Resident Engineer
 Bahria Town Private Limited
 Water Course Southern Ext. Phase-I Bahria Orchard Lahore

Reference # CED/TFL **37661** (Dr. Rizwan Riaz)
 Reference of the request letter # QA/QC-Steel-2457

Dated: 04-01-2022
 Dated: 30-12-2021

Tension Test Report (Page -1/1)

Date of Test 10-01-2022
 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 ²)		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	0.376	3	0.375	0.11	0.111	3400	4800	68200	67810	96200	95800	1.10	13.8	FF Steel
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only one samples for tensile and one sample for bend test														
Bend Test														
#3 Bar Bend Test Through 180° is Satisfactory														

I/C Testing Laboratoires
UET Lahore, Pakistan.

Note:

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- 2- The above results pertain to sample /samples supplied to this laboratory.
- 3- Sealed sample / Unsealed sample / Marked sample/Signed Samples



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

To,
M/S Defence Housing Authority.
Lahore Cantt
(Construction of Mosque at Sector- G, DHA Phase-V (M/s Waha Enterprises))

Reference # CED/TFL **37662** (Dr. Rizwan Azam)
Reference of the request letter # 408/241/E/Lab/05/11

Dated: 05-01-2022
Dated: 03-01-2022

Tension Test Report (Page -1/1)

Date of Test 10-01-2022
Gauge length 8 inches
Description Deformed Steel Bar Tensile Test as per ASTM-A615

Sr. No.	Weight (lbs/ft)	Diameter/ size		Area (in ²)		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	0.414	3	0.394	0.11	0.122	3500	4900	70200	63410	98200	88800	1.10	13.8	Agha Steel
2	0.415	3	0.394	0.11	0.122	4300	5500	86200	77710	110200	99400	1.10	13.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile test														
Bend Test														

I/C Testing Laboratoires
UET Lahore, Pakistan.

Note:

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

To,
 CM
 Thaheem Construction Company
 E Tachi Mobile Detergent Plant Project

Reference # CED/TFL **37663** (Dr. Rizwan Azam)
 Reference of the request letter # Nil

Dated: 05-01-2022
 Dated: 03-01-2022

Tension Test Report (Page -1/1)

Date of Test 10-01-2022
 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 ²)		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	0.378	3/8	0.376	0.11	0.111	3500	4900	70200	69380	98200	97200	1.10	13.8	
2	0.381	3/8	0.378	0.11	0.112	3600	4900	72200	70870	98200	96500	1.20	15.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample for bend test														
Bend Test														
3/8" Dia Bar Bend Test Through 180° is Satisfactory														

I/C Testing Laboratoires
UET Lahore, Pakistan.

Note:

- 1- You can See your reports On Internet in the following web site
http://www.uet.edu.pk/faculties/facultiesinfo/civil/index.html?RID=testing_reports
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STRUCTURAL ENGINEERING DIVISION
Test Floor Laboratory
Department of Civil Engineering
University of Engineering and Technology Lahore, 54890
Pakistan. Ph: 92-42-99029202

To,
 Manager Projects
 Projex
 Engro Enfrashare
 Site ID:- EC1-LHR-05434, EC1-LHR05436, EC1-GUT-05445, EC2-SKO-05448

Reference # CED/TFL **37664** (Dr. Rizwan Azam)
 Reference of the request letter # PCP/Eng-01

Dated: 05-01-2022
 Dated: 01-01-2022

Tension Test Report (Page -1/1)

Date of Test 10-01-2022
 Gauge length 8 inches
 Description Deformed Steel Bar Tensile Test as per ASTM-A615

Sr. No.	Weight (lbs/ft)	Diameter/ Size (mm)		Area (in ²)		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	0.367	10	9.42	0.12	0.108	3600	4700	66138	73480	86347	96000	0.80	10.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only one sample for tensile test														
Bend Test														

I/C Testing Laboratoires
UET Lahore, Pakistan.

Note:

- 1- You can See your reports On Internet in the following web site
http://www.uet.edu.pk/faculties/facultiesinfo/civil/index.html?RID=testing_reports
- 2- The above results pertain to sample /samples supplied to this laboratory.
- 3- Sealed sample / Unsealed sample / Marked sample/Signed Samples



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

To,
 Resident Engineer
 NESPAK
 Construction of Office Complex, DHA Bahawalpur

Reference # CED/TFL **37665** (Dr. Rizwan Azam)
 Reference of the request letter # 4401/NY/T/05/60

Dated: 05-01-2022
 Dated: 03-01-2022

Tension Test Report (Page -1/1)

Date of Test 10-01-2022
 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 ²)		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	0.418	3	0.395	0.11	0.123	3500	5200	70200	62860	104200	93400	1.20	15.0	Kamran Steel
2	0.402	3	0.388	0.11	0.118	3600	5000	72200	67120	100200	93300	1.40	17.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample for bend test														
Bend Test														
#3 Bar Bend Test Through 180° is Satisfactory														

I/C Testing Laboratoires
UET Lahore, Pakistan.

Note:

- 1- You can See your reports On Internet in the following web site
http://www.uet.edu.pk/faculties/facultiesinfo/civil/index.html?RID=testing_reports
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STRUCTURAL ENGINEERING DIVISION
Test Floor Laboratory
Department of Civil Engineering
University of Engineering and Technology Lahore, 54890
Pakistan. Ph: 92-42-99029202

To,
Resident Engineer – I
NESPAK
Construction of Sheranwala Flyover, Lahore
(WMI)

Reference # CED/TFL **37666** (Dr. Rizwan Azam)
Reference of the request letter # 3772/SF/103/MWA/04/223

Dated: 05-01-2022
Dated: 04-01-2022

Tension Test Report (Page -1/2)

Date of Test 10--01-2022
Gauge length 640 mm
Description Steel Strand Tensile Test as per ASTM A-416-94a

Sr. No.	Nominal Diameter	Nominal Weight	Measured weight	Yield strength clause (6.3)		Breaking strength clause (6.2)		Young's Modulus of Elasticity "E"	% Elongation	Remarks / Coil No.
	(mm)	(kg/km)	(kg/km)	(kg)	(kN)	(kg)	(kN)	GPa		
1	12.70 (1/2")	775.0	778.0	17400	170.69	19600	192.28	199	>3.50	23169
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
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

I/C Testing Laboratoires
UET Lahore, Pakistan.

Note:

- 1- You can See your reports On Internet in the following web site
http://www.uet.edu.pk/faculties/facultiesinfo/civil/index.html?RID=testing_reports
2. The above results pertain to sample /samples supplied to this laboratory.
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Pakistan. Ph: 92-42-99029202

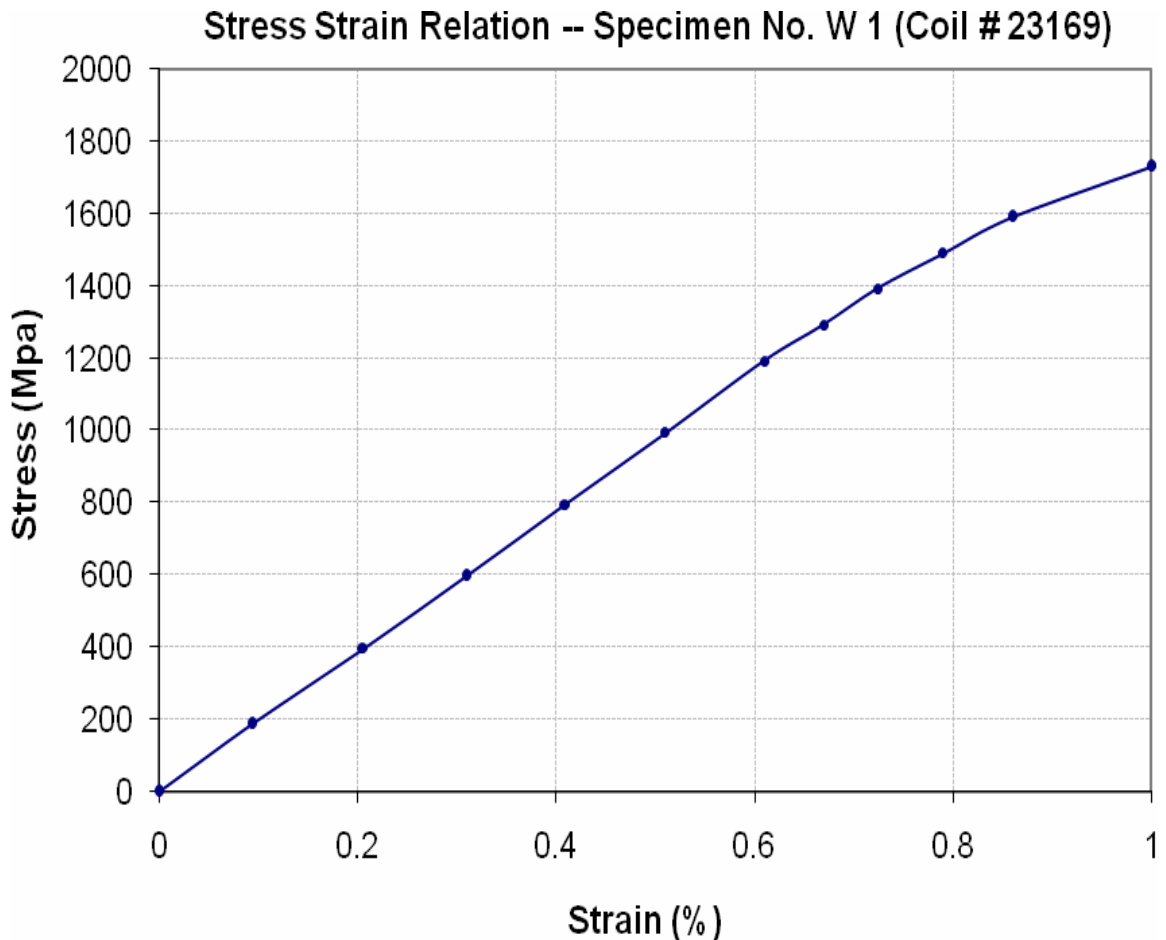
To,
Resident Engineer – I
NESPAK
Construction of Sheranwala Flyover, Lahore
(WMI)

Reference # CED/TFL **37666** (Dr. Rizwan Azam)
Reference of the request letter # 3772/SF/103/MWA/04/223

Dated: 05-01-2022

Dated: 04-01-2022

Graph (Page – 2/2)



I/C Testing Laboratoires
UET Lahore, Pakistan.

Note:

- 1- You can See your reports On Internet in the following web site
http://www.uet.edu.pk/faculties/facultiesinfo/civil/index.html?RID=testing_reports
- 2- The above results pertain to sample /samples supplied to this laboratory.
- 3- Sealed sample / Unsealed sample / Marked sample/Signed Samples



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

To,
 Project Manager
 Architectural Heritage
 Lahore

Reference # CED/TFL **37668** (Dr. Rizwan Azam)
 Reference of the request letter # SLK/ST/01/1221-1

Dated: 06-01-2022
 Dated: 11-12-2021

Tension Test Report (Page -1/1)

Date of Test 10-01-2022
 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 ²)		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	0.379	3	0.377	0.11	0.111	3300	5000	66200	65290	100200	99000	1.30	16.3	Ittefaq Steel
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only one sample for tensile and one sample for bend test														
Bend Test														
#3 Bar Bend Test Through 180° is Satisfactory														

I/C Testing Laboratoires
UET Lahore, Pakistan.

Note:

- 1- You can See your reports On Internet in the following web site
http://www.uet.edu.pk/faculties/facultiesinfo/civil/index.html?RID=testing_reports
- 2- The above results pertain to sample /samples supplied to this laboratory.
- 3- Sealed sample / Unsealed sample / Marked sample/Signed Samples



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

To,
M/S TM Enterprises
Lahore

Reference # CED/TFL **37669** (Dr. Rizwan Azam)
Reference of the request letter # Nil

Dated: 06-01-2022
Dated: 06-01-2022

Tension Test Report (Page -1/1)

Date of Test 10-01-2022
Gauge length 8 inches
Description Deformed Steel Bar Tensile Test as per ASTM-A615

Sr. No.	Weight (lbs/ft)	Diameter/ Size		Area (in ²)		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	0.373	3	0.374	0.11	0.110	2800	4400	56200	56240	88200	88400	1.70	21.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile test														
Bend Test														

I/C Testing Laboratories
UET Lahore, Pakistan.

Note:

- 1- You can See your reports On Internet in the following web site
http://www.uet.edu.pk/faculties/facultiesinfo/civil/index.html?RID=testing_reports
- 2- The above results pertain to sample /samples supplied to this laboratory.
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STRUCTURAL ENGINEERING DIVISION
Test Floor Laboratory
Department of Civil Engineering
University of Engineering and Technology Lahore, 54890
Pakistan. Ph: 92-42-99029202

To,
Resident Engineer – I
NESPAK
Construction of Sheranwala Flyover, Lahore
(WMI)

Reference # CED/TFL **37670** (Dr. Rizwan Azam)
Reference of the request letter # 3772/SF/103/MWA/04/226

Dated: 06-01-2022
Dated: 05-01-2022

Tension Test Report (Page -1/2)

Date of Test 10--01-2022
Gauge length 640 mm
Description Steel Strand Tensile Test as per ASTM A-416-94a

Sr. No.	Nominal Diameter	Nominal Weight	Measured weight	Yield strength clause (6.3)		Breaking strength clause (6.2)		Young's Modulus of Elasticity "E"	% Elongation	Remarks / Coil No.
	(mm)	(kg/km)	(kg/km)	(kg)	(kN)	(kg)	(kN)	GPa		
1	12.70 (1/2")	775.0	781.0	18000	176.58	19900	195.22	198	>3.50	23183
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
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

I/C Testing Laboratoires
UET Lahore, Pakistan.

Note:

- 1- You can See your reports On Internet in the following web site
http://www.uet.edu.pk/faculties/facultiesinfo/civil/index.html?RID=testing_reports
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STRUCTURAL ENGINEERING DIVISION
Test Floor Laboratory
Department of Civil Engineering
University of Engineering and Technology Lahore, 54890
Pakistan. Ph: 92-42-99029202

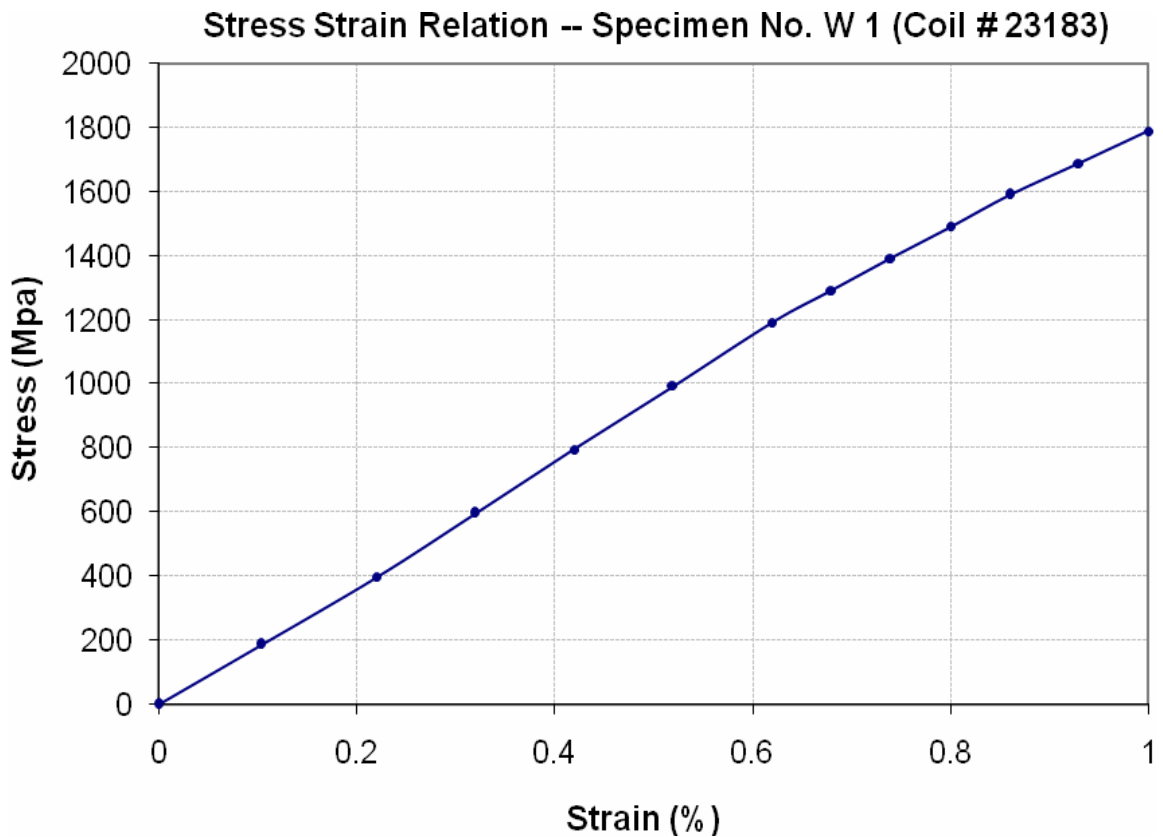
To,
Resident Engineer – I
NESPAK
Construction of Sheranwala Flyover, Lahore
(WMI)

Reference # CED/TFL **37670** (Dr. Rizwan Azam)
Reference of the request letter # 3772/SF/103/MWA/04/226

Dated: 06-01-2022

Dated: 05-01-2022

Graph (Page – 2/2)



I/C Testing Laboratories
UET Lahore, Pakistan.

Note:

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- 3- Sealed sample / Unsealed sample / Marked sample/Signed Samples



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

To,
Resident Engineer – I
NESPAK
Construction of Sheranwala Flyover, Lahore
(WMI)

Reference # CED/TFL **37671** (Dr. Rizwan Azam)
Reference of the request letter # 3772/SF/103/MWA/04/224

Dated: 06-01-2022
Dated: 05-01-2022

Tension Test Report (Page -1/2)

Date of Test 10-01-2022
Gauge length 640 mm
Description Steel Strand Tensile Test as per ASTM A-416-94a

Sr. No.	Nominal Diameter	Nominal Weight	Measured weight	Yield strength clause (6.3)		Breaking strength clause (6.2)		Young's Modulus of Elasticity "E"	% Elongation	Remarks / Coil No.
	(mm)	(kg/km)	(kg/km)	(kg)	(kN)	(kg)	(kN)	GPa		
1	12.70 (1/2")	775.0	783.0	17200	168.73	19300	189.33	198	>3.50	23172
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
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

I/C Testing Laboratoires
UET Lahore, Pakistan.

Note:

- 1- You can See your reports On Internet in the following web site
http://www.uet.edu.pk/faculties/facultiesinfo/civil/index.html?RID=testing_reports
2. The above results pertain to sample /samples supplied to this laboratory.
- 3- Sealed sample / Unsealed sample / Marked sample/Signed Samples



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

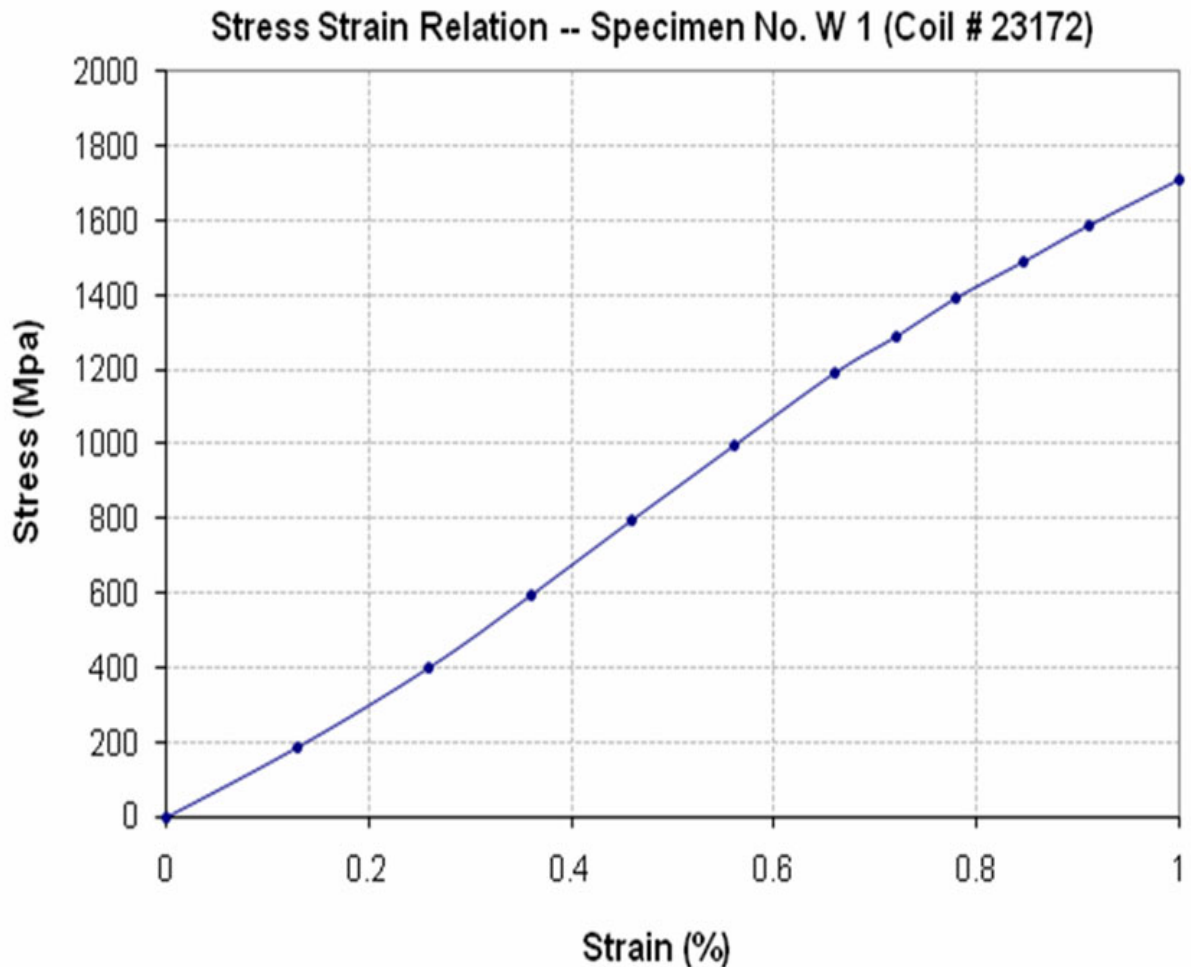
To,
Resident Engineer – I
NESPAK
Construction of Sheranwala Flyover, Lahore
(WMI)

Reference # CED/TFL **37671** (Dr. Rizwan Azam)
Reference of the request letter # 3772/SF/103/MWA/04/224

Dated: 06-01-2022

Dated: 05-01-2022

Graph (Page – 2/2)



I/C Testing Laboratories
UET Lahore, Pakistan.

Note:

- 1- You can See your reports On Internet in the following web site
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2. The above results pertain to sample /samples supplied to this laboratory.
- 3- Sealed sample / Unsealed sample / Marked sample/Signed Samples



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

Ref: CED/TFL/01/37672

Dated: 06-01-2022

Dated: 10-01-2022

To,
Resident Engineer
NESPAK

Construction of Circular Bypass Road Bannu ADP No. 1607/170523 (2021-22) Package - VII (10 no. Bridge within km 0+000 - 30+000 km)

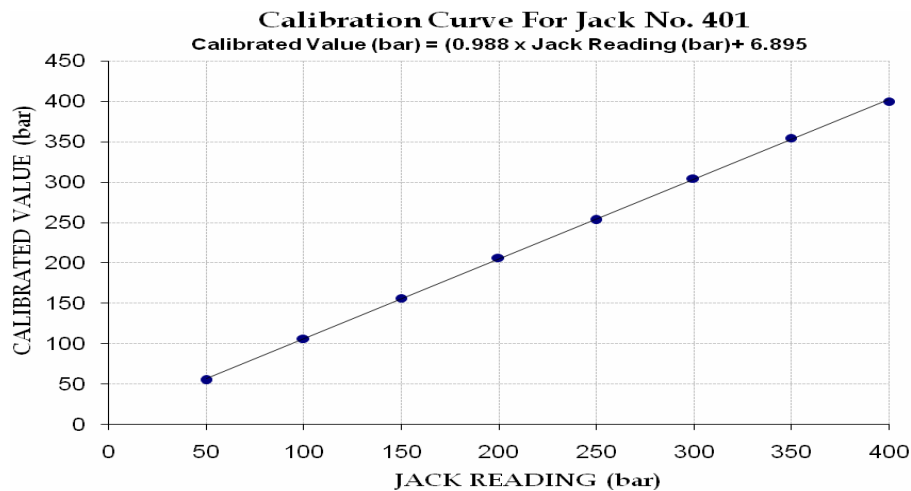
Subject: - CALIBRATION OF HYDRAULIC JACK WITH PRESSURE GAUGE
(MARK: TFL/01/37672) (Page -1/2)

Reference to your Letter No. 4040/021/SK/02/0330, Dated: 03/01/2022 on the subject cited above. One Hydraulic Jack (Jack No. 401, Gauge No. 401) as received by us has been calibrated. The results are tabulated as under:

Total Range : Zero - 700 (bar)
Calibrated Range : Zero - 400 (bar)

Hydraulic Jack Reading (bar)	50	100	150	200	250	300	350	400
Calibrated Load (k g)	25600	49800	73400	97000	119000	143200	166600	188000
Calibrated Pressure (bar)	54	106	156	206	253	304	354	400

The Ram Area of Jack = 461.22 cm²



I/C Testing Laboratoires
UET Lahore, Pakistan.

Note:

- 1- You can See your reports On Internet in the following web site
http://www.uet.edu.pk/faculties/facultiesinfo/civil/index.html?RID=testing_reports
- 2- The above results pertain to sample /samples supplied to this laboratory.
- 3- Sealed sample / Unsealed sample / Marked sample/Signed Samples



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

Ref: CED/TFL/01/37672

Dated: 06-01-2022

Dated: 10-01-2022

To,
Resident Engineer
NESPAK

Construction of Circular Bypass Road Bannu ADP No. 1607/170523 (2021-22) Package - VII (10 no. Bridge within km 0+000 - 30+000 km)

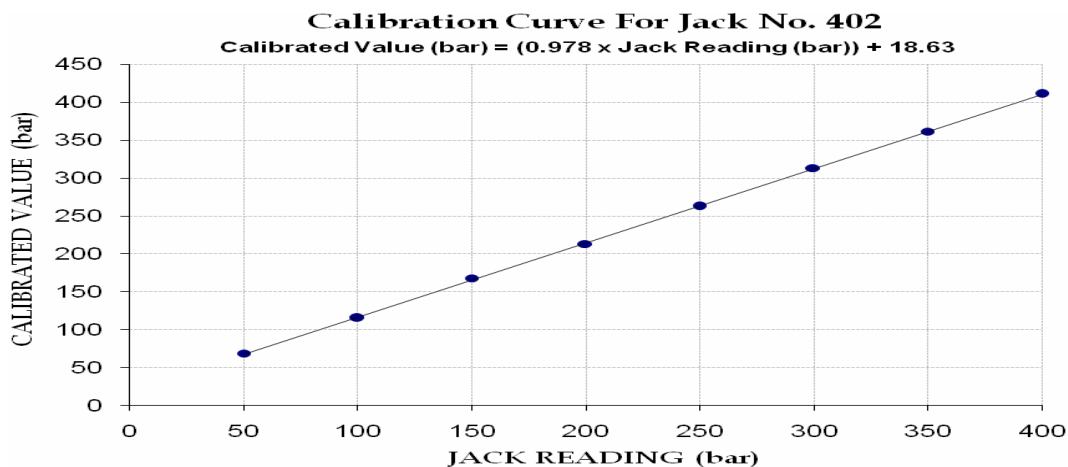
Subject: - CALIBRATION OF HYDRAULIC JACK WITH PRESSURE GAUGE
(MARK: TFL/01/37672) (Page -1/2)

Reference to your Letter No. 4040/021/SK/02/0330, Dated: 03/01/2022 on the subject cited above. One Hydraulic Jack (Jack No. 402, Gauge No. 402) as received by us has been calibrated. The results are tabulated as under:

Total Range : Zero - 700 (bar)
Calibrated Range : Zero - 400 (bar)

Hydraulic Jack Reading (bar)	50	100	150	200	250	300	350	400
Calibrated Load (k g)	32200	54200	78800	100000	123400	147200	169800	193200
Calibrated Pressure (bar)	68	115	168	213	262	313	361	411

The Ram Area of Jack = 461.22 cm²



To,

I/C Testing Laboratoires
UET Lahore, Pakistan.

Note:

- 1- You can See your reports On Internet in the following web site
http://www.uet.edu.pk/faculties/facultiesinfo/civil/index.html?RID=testing_reports
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STRUCTURAL ENGINEERING DIVISION
Test Floor Laboratory
Department of Civil Engineering
University of Engineering and Technology Lahore, 54890
Pakistan. Ph: 92-42-99029202

Chief Resident Engineer
 NESPAK

Dualization of Road from Gujranwala to M-2 Interchange at Kot Sarwar via Hafizabad km 6.20 to km 80.35 length 74.15 km in District Gujranwala & Hafizabad (Section km No. 40.20 – 55.40)

Reference # CED/TFL **37673** (Dr. Rizwan Riaz)
 Reference of the request letter # SA-466F/103/GH/ML/01

Dated: 06-01-2022
 Dated: 05-01-2022

Tension Test Report (Page -1/1)

Date of Test 10-01-2022
 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 ²)		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	0.374	3	0.374	0.11	0.110	3400	4800	68200	68250	96200	96400	1.20	15.0	
2	0.373	3	0.374	0.11	0.110	3400	4700	68200	68340	94200	94500	1.10	13.8	
3	4.395	10	1.283	1.27	1.292	39600	53000	68800	67570	92000	90500	1.60	20.0	
4	4.225	10	1.257	1.27	1.242	36000	49600	62500	63900	86100	88100	1.60	20.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only four samples for tensile and two samples for bend test														
Bend Test														
#3 Bar Bend Test Through 180° is Satisfactory														
#10 Bar Bend Test Through 180° is Satisfactory														

I/C Testing Laboratoires
UET Lahore, Pakistan.

Note:

- 1- You can See your reports On Internet in the following web site
http://www.uet.edu.pk/faculties/facultiesinfo/civil/index.html?RID=testing_reports
2. The above results pertain to sample /samples supplied to this laboratory.
- 3- Sealed sample / Unsealed sample / Marked sample/Signed Samples



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

To,
 M/S Ittefaq Building Solution (Pvt) Ltd.
 Lahore
 (Sapphire Diamond Ferozwatwan, Building: New Wasing and Finishing Area)

Reference # CED/TFL **37674** (Dr. Rizwan Azam)
 Reference of the request letter # IBS/SD/ST30

Dated: 07-01-2022
 Dated: 06-01-2022

Tension Test Report (Page -1/1)

Date of Test 10-01-2022
 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 ²)		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	0.403	3	0.388	0.11	0.119	3500	5000	70200	65080	100200	93000	1.40	17.5	
2	0.384	3	0.379	0.11	0.113	3300	4300	66200	64410	86200	84000	1.20	15.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample for bend test														
Bend Test														
#3 Bar Bend Test Through 180° is Satisfactory														

I/C Testing Laboratoires
UET Lahore, Pakistan.

Note:

- 1- You can See your reports On Internet in the following web site
http://www.uet.edu.pk/faculties/facultiesinfo/civil/index.html?RID=testing_reports
- 2- The above results pertain to sample /samples supplied to this laboratory.
- 3- Sealed sample / Unsealed sample / Marked sample/Signed Samples



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

To,
M/S Ittefaq Building Solution (Pvt) Ltd.
Lahore
(Sapphire Diamond Ferozwatwan, Building: (New Apparel Village))

Reference # CED/TFL **37675** (Dr. Rizwan Azam)
Reference of the request letter # IBS/SD/ST31

Dated: 07-01-2022
Dated: 06-01-2022

Tension Test Report (Page -1/1)

Date of Test 10-01-2022
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 ²)		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	0.371	3	0.372	0.11	0.109	3900	4900	78200	78910	98200	99200	0.70	8.8	
2	0.384	3	0.379	0.11	0.113	3300	4400	66200	64390	88200	85900	1.30	16.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample for bend test														
Bend Test														
#3 Bar Bend Test Through 180° is Satisfactory														

I/C Testing Laboratoires
UET Lahore, Pakistan.

Note:

- 1- You can See your reports On Internet in the following web site
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STRUCTURAL ENGINEERING DIVISION
Test Floor Laboratory
Department of Civil Engineering
University of Engineering and Technology Lahore, 54890
Pakistan. Ph: 92-42-99029202

To,
 Project Director
 M/s Nerien Engineering
 Mall of Sheikhpura

Reference # CED/TFL **37676** (Dr. Rizwan Azam)
 Reference of the request letter # UET/NE/Site-01

Dated: 07-01-2022
 Dated: 06-01-2022

Tension Test Report (Page -1/1)

Date of Test 10-01-2022
 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 ²)		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	0.371	3/8	0.373	0.11	0.109	3100	4500	62200	62600	90200	90900	1.40	17.5	
2	0.376	3/8	0.375	0.11	0.110	3000	4500	60200	59870	90200	89800	1.10	13.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample for bend test														
Bend Test														
3/8" Dia Bar Bend Test Through 180° is Satisfactory														

I/C Testing Laboratoires
UET Lahore, Pakistan.

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

To,
Business Support Manager
JK & S Global Developers
Construction of Bridge Over CRBC at D I Khan New City.
(WMI)

Reference # CED/TFL **37677** (Dr. Rizwan Azam)
Reference of the request letter # JK&S/HO/2022/001

Dated: 07-01-2022
Dated: 06-01-2022

Tension Test Report (Page -1/3)

Date of Test 10-01-2022
Gauge length 640 mm
Description Steel Strand Tensile Test as per ASTM A-416-94a

Sr. No.	Nominal Diameter	Nominal Weight	Measured weight	Yield strength clause (6.3)		Breaking strength clause (6.2)		Young's Modulus of Elasticity "E"	% Elongation	Remarks / Coil No.
	(mm)	(kg/km)	(kg/km)	(kg)	(kN)	(kg)	(kN)	GPa		
1	12.70 (1/2")	775.0	785.0	17000	166.77	19300	189.33	199	>3.50	xx
2	12.70 (1/2")	775.0	782.0	17100	167.75	19300	189.33	198	>3.50	xx
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
Only two samples 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

I/C Testing Laboratoires
UET Lahore, Pakistan.

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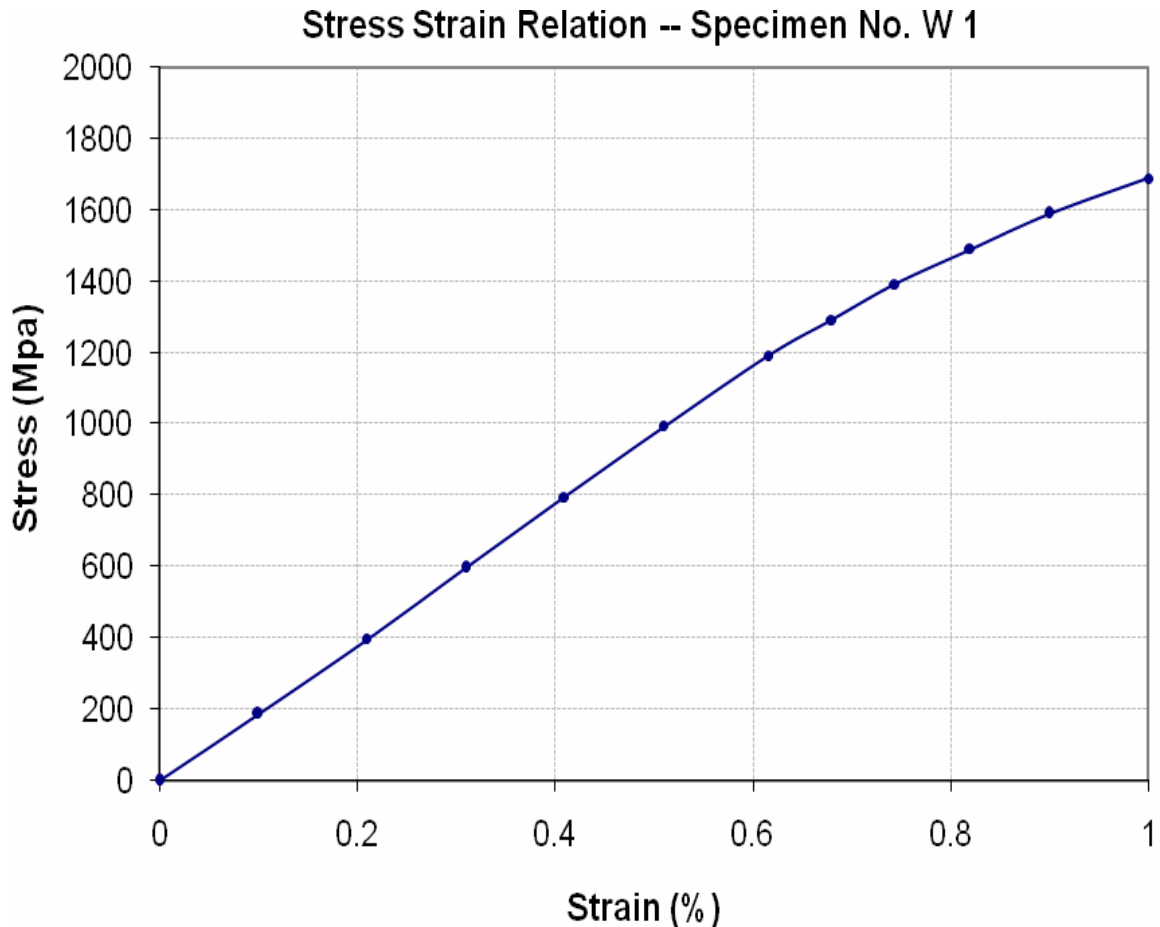
To,
Business Support Manager
JK & S Global Developers
Construction of Bridge Over CRBC at D I Khan New City.
(WMI)

Reference # CED/TFL **37677** (Dr. Rizwan Azam)
Reference of the request letter # JK&S/HO/2022/001

Dated: 07-01-2022

Dated: 06-01-2022

Graph (Page – 2/3)



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UET Lahore, Pakistan.

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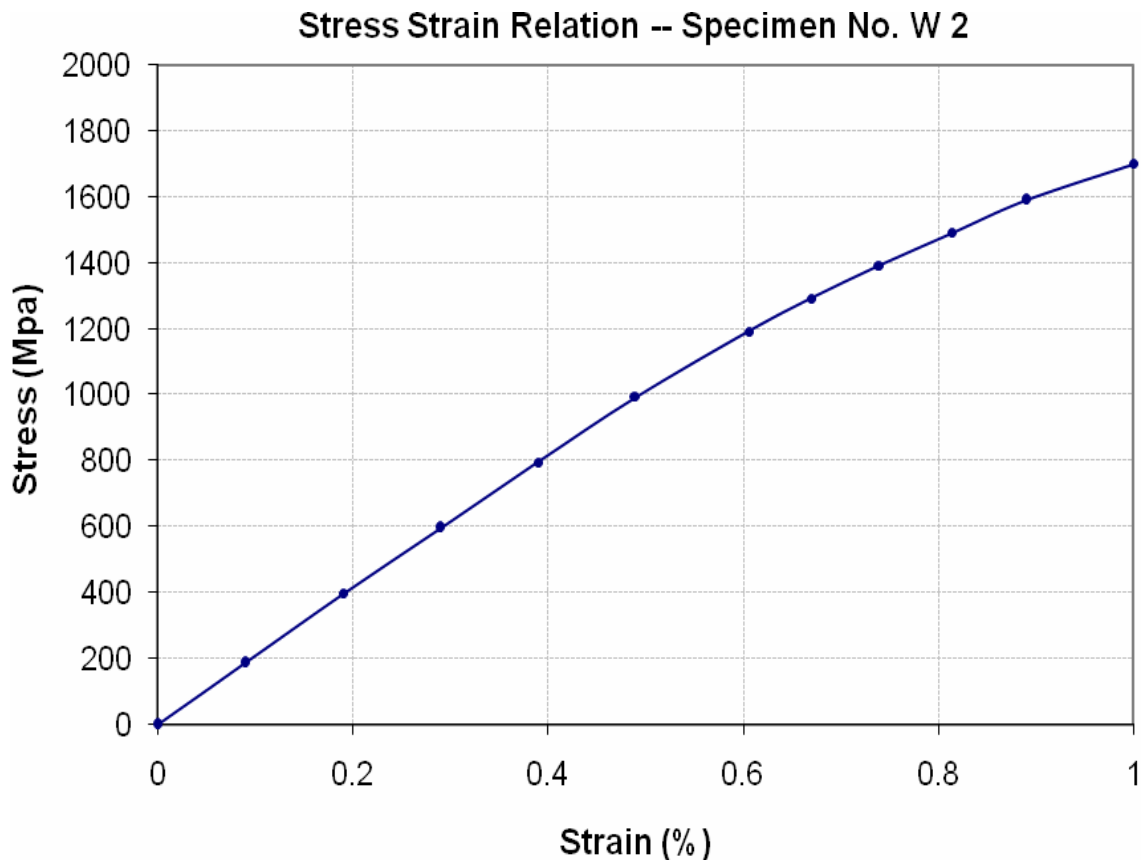
To,
Business Support Manager
JK & S Global Developers
Construction of Bridge Over CRBC at D I Khan New City.
(WMI)

Reference # CED/TFL **37677** (Dr. Rizwan Azam)
Reference of the request letter # JK&S/HO/2022/001

Dated: 07-01-2022

Dated: 06-01-2022

Graph (Page – 3/3)



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UET Lahore, Pakistan.

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

To,
 Chief Resident Engineer
 MM Pajistan (Pvt) Ltd
 Kachhi Canal Project – Construction of Main Canal and Distribution System (Earth Work, Structures and Lining of Main Canal & Distributaries)

Reference # CED/TFL **37678** (Dr. Rizwan Riaz) Dated: 07-01-2022
 Reference of the request letter # KCP/CRE/KC-6B(3R)/UET/59 Dated: 06-01-2022

Tension Test Report (Page -1/1)

Date of Test 10-01-2022
 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 ²)		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	0.416	3	0.394	0.11	0.122	4600	5600	92200	83020	112300	101100	0.80	10.0	HSJ Steel
2	0.419	3	0.396	0.11	0.123	4700	5600	94200	84100	112300	100200	0.80	10.0	
3	4.127	10	1.243	1.27	1.213	29400	45800	51100	53420	79500	83300	1.60	20.0	
4	4.101	10	1.239	1.27	1.205	29600	45800	51400	54130	79500	83800	1.60	20.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only four samples for tensile and two samples for bend test														
Bend Test														
#3 Bar Bend Test Through 180° is Satisfactory														
#10 Bar Bend Test Through 180° is Satisfactory														

I/C Testing Laboratoires
UET Lahore, Pakistan.

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