



**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/08/5474

Dated: 06-08-2024

Dated of Test: 18-08-2024

To

**Assistant Director (QCD)**  
**WASA, LDA, Lahore**  
**(M/s Bismillah RCC Pipe Factory)**

**Subject: - CALIBRATION OF HYDRAULIC JACK WITH GAUGE**  
**(MARK: TFL/08/5474)**

Reference to your Letter No. QCD/1162-63, Dated: 22/06/2024 on the subject cited above. One Hydraulic Jack with Gauge as received by us has been calibrated. The results are tabulated as under:

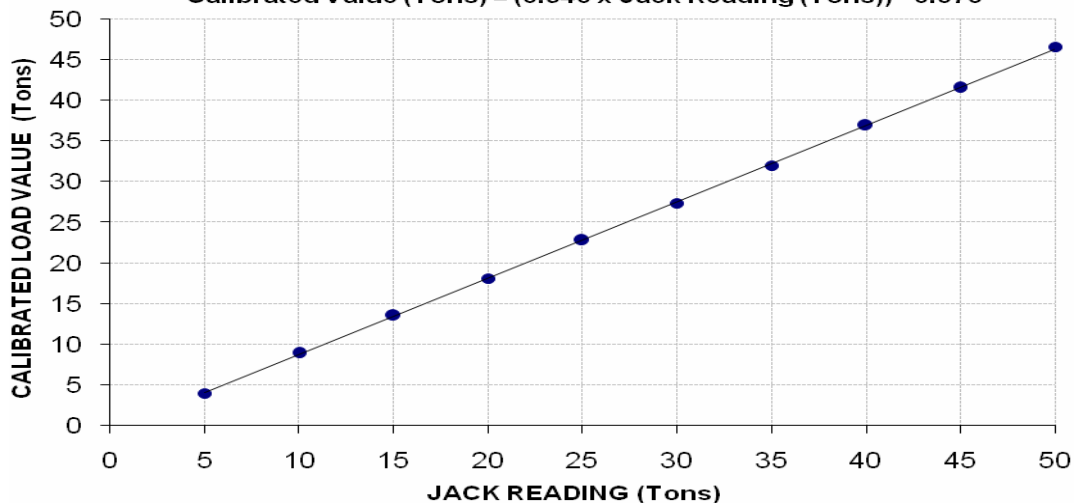
**Total Range : Zero - 76 (Ton)**  
**Calibrated Range : Zero - 40 (Ton)**

Hydraulic Jack Reading (Ton)	5	10	15	20	25	30	35	40	45	50	
Calibrated Load	(kg)	3600	8100	12300	16450	20700	24850	29100	33550	37750	42350
	(Ton)	3.96	8.92	13.54	18.11	22.79	27.36	32.04	36.94	41.57	46.63

1000 Kg = 1.1011 Ton

**Calibration Curve For Jack**

**Calibrated Value (Tons) = (0.940 x Jack Reading (Tons)) - 0.675**



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

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To,  
General Manager  
Blue Bricks  
Blue World Shenzhen City.

Reference # CED/TFL **5502** (Dr. Rizwan Azam)  
Reference of the request letter # BTS/Lab/001121

Dated: 13-08-2024  
Dated: 13-08-2024

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

Date of Test 15-08-2024  
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	0.375	3	0.375	0.11	0.110	3100	4900	62200	61990	98200	98000	1.40	17.5	Aziz Steel
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only one sample for tensile and one samples 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,  
 M/S M. Saleem Construction Company  
 Sheikhpura  
 (Bridge at Garment Unit.)

Reference # CED/TFL **5503** (Dr. Rizwan Azam) Dated: 13-08-2024  
 Reference of the request letter # FFSteel/3/Grade 60/Mastergarments Dated: 12-08-2024

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

Date of Test 15-08-2024  
 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	0.331	3	0.352	0.11	0.097	3400	4800	68200	77080	96200	108900	1.10	13.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only one sample 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,

M/S Design & Build  
Lahore  
(Bank Alfalah IBG GC Women University, Faisalabad.)

Reference # CED/TFL **5504** (Dr. Rizwan Azam)  
Reference of the request letter # Nil

Dated: 13-08-2024  
Dated: 06-08-2024

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

Date of Test 15-08-2024  
Gauge length 8 inches  
Description Deformed Steel Bar Tensile 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	0.367	3	0.371	0.11	0.108	3700	4600	74200	75520	92200	93900	1.20	15.0	
2	0.366	3	0.370	0.11	0.108	3700	4600	74200	75720	92200	94200	1.20	15.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only two samples for tensile test</b>														
Bend Test														

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

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To,  
Project Manager  
Sunshina Health Care Private Limited.  
Sunshine Medical Tower Shashtra.

Reference # CED/TFL **5506** (Dr. Rizwan Azam)  
Reference of the request letter # Nil

Dated: 13-08-2024  
Dated: 12-08-2024

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

Date of Test 15-08-2024  
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	0.375	3	0.374	0.11	0.110	3600	5600	72200	72070	112300	112100	0.80	10.0	
2	0.371	3	0.373	0.11	0.109	3700	5600	74200	74700	112300	113100	0.80	10.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only two samples for tensile and one samples 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,

M/S J.N & Co. - Habib Construction ServicesJv  
Karachi  
(Construction of Bridge at Korangi Causeway Karachi.)  
(M/s Wire Manufacturing Industry Ltd.)

Reference # CED/TFL **5507** (Dr. Rizwan Azam)  
Reference of the request letter # Nil

Dated: 13-08-2024  
Dated: 12-08-2024

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

Date of Test 15-08-2024  
Gauge length 600 mm  
Description Steel Strand Tensile Test as per ASTM A-416-94a

Sr. No.	Nominal Diameter	Nominal Weight	Measured weight	Yield strength clause (6.3)		Breaking strength clause (6.2)		Young's Modulus of Elasticity "E"	% Elongation	Remarks / Coil No.
	(mm)	(kg/km)	(kg/km)	(kg)	(kN)	(kg)	(kN)	GPa		
1	12.70 (1/2")	780.0	784.0	18500	181.49	19900	195.22	199	>3.50	xx
2	12.70 (1/2")	780.0	785.0	17800	174.62	19600	192.28	198	>3.50	xx
3	12.70 (1/2")	780.0	785.0	18300	179.52	19800	194.24	199	>3.50	xx
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	

**Only three 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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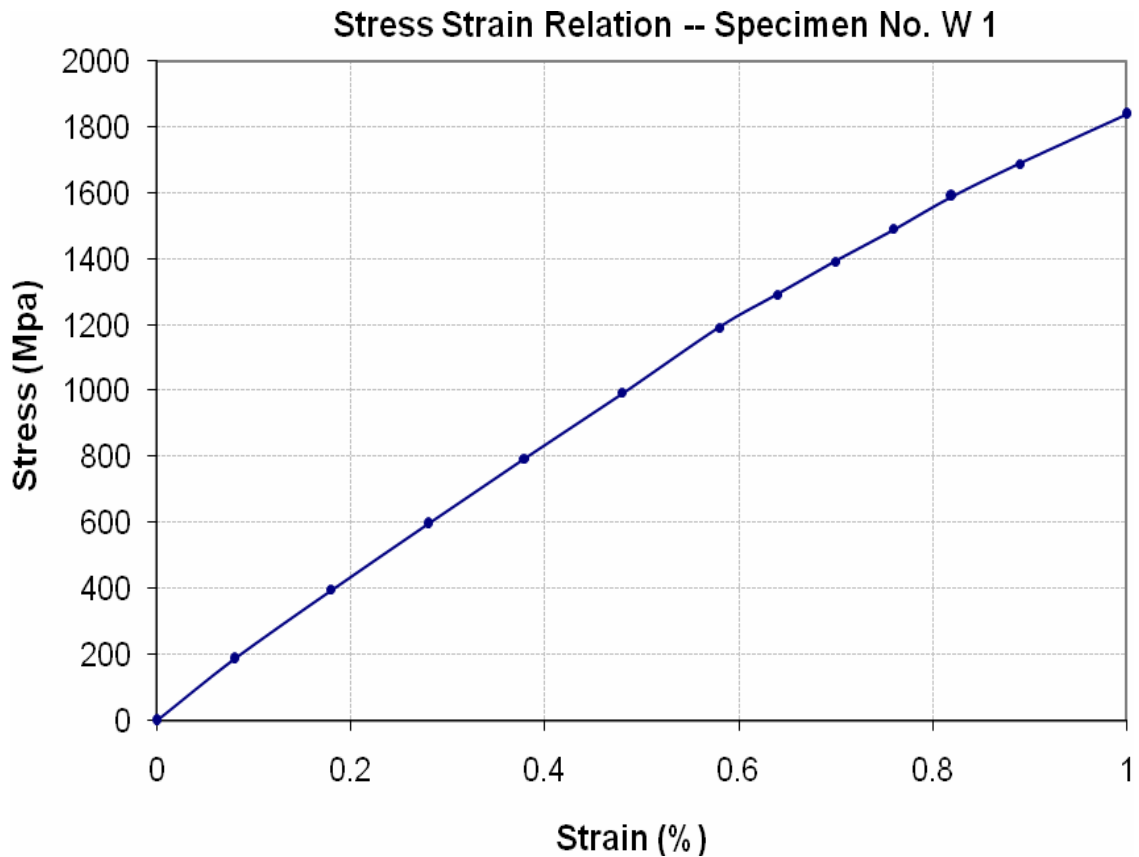
To,

M/S J.N & Co. - Habib Construction ServicesJv  
Karachi  
(Construction of Bridge at Korangi Causeway Karachi.)  
(M/s Wire Manufacturing Industry Ltd.)

Reference # CED/TFL **5507** (Dr. Rizwan Azam)  
Reference of the request letter # Nil

Dated: 13-08-2024  
Dated: 12-08-2024

**Graph** (Page – 2/4)



**I/C Testing Laboratories**  
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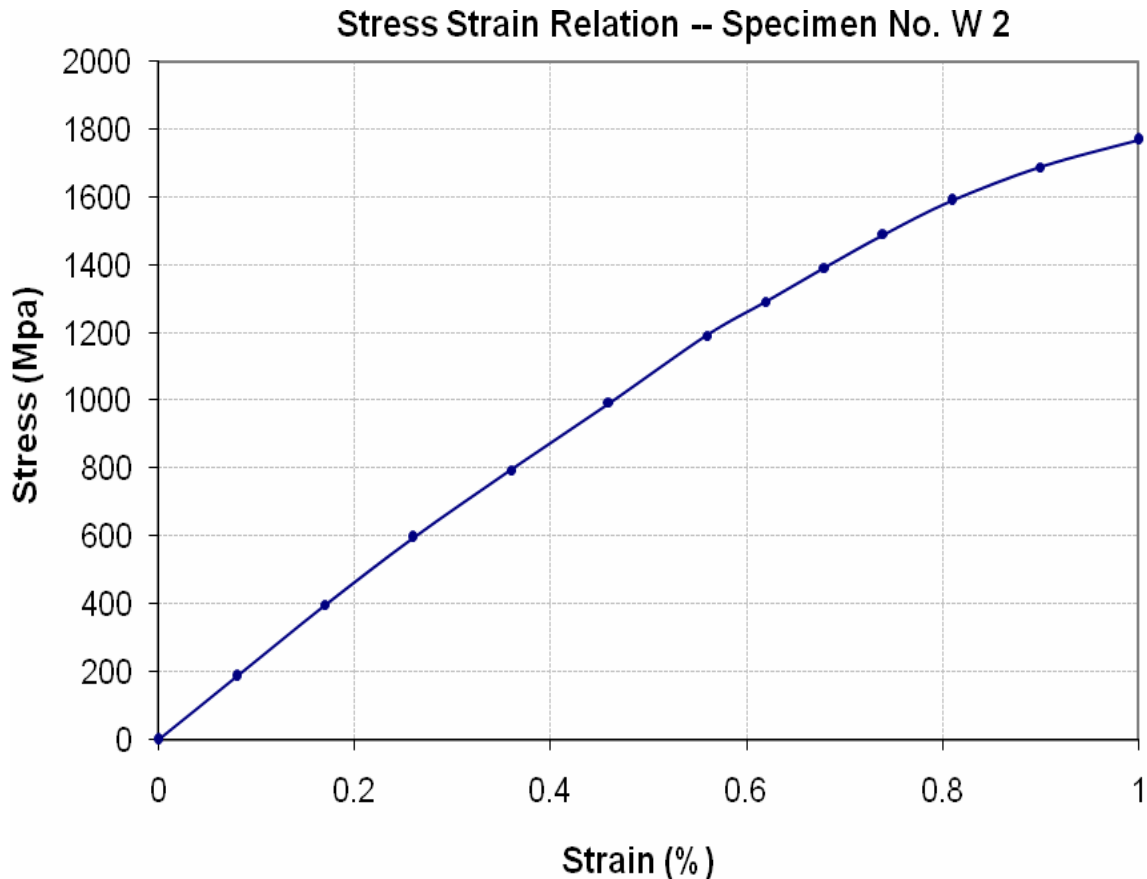
To,

M/S J.N & Co. - Habib Construction ServicesJv  
Karachi  
(Construction of Bridge at Korangi Causeway Karachi.)  
(M/s Wire Manufacturing Industry Ltd.)

Reference # CED/TFL **5507** (Dr. Rizwan Azam)  
Reference of the request letter # Nil

Dated: 13-08-2024  
Dated: 12-08-2024

**Graph** (Page – 3/4)



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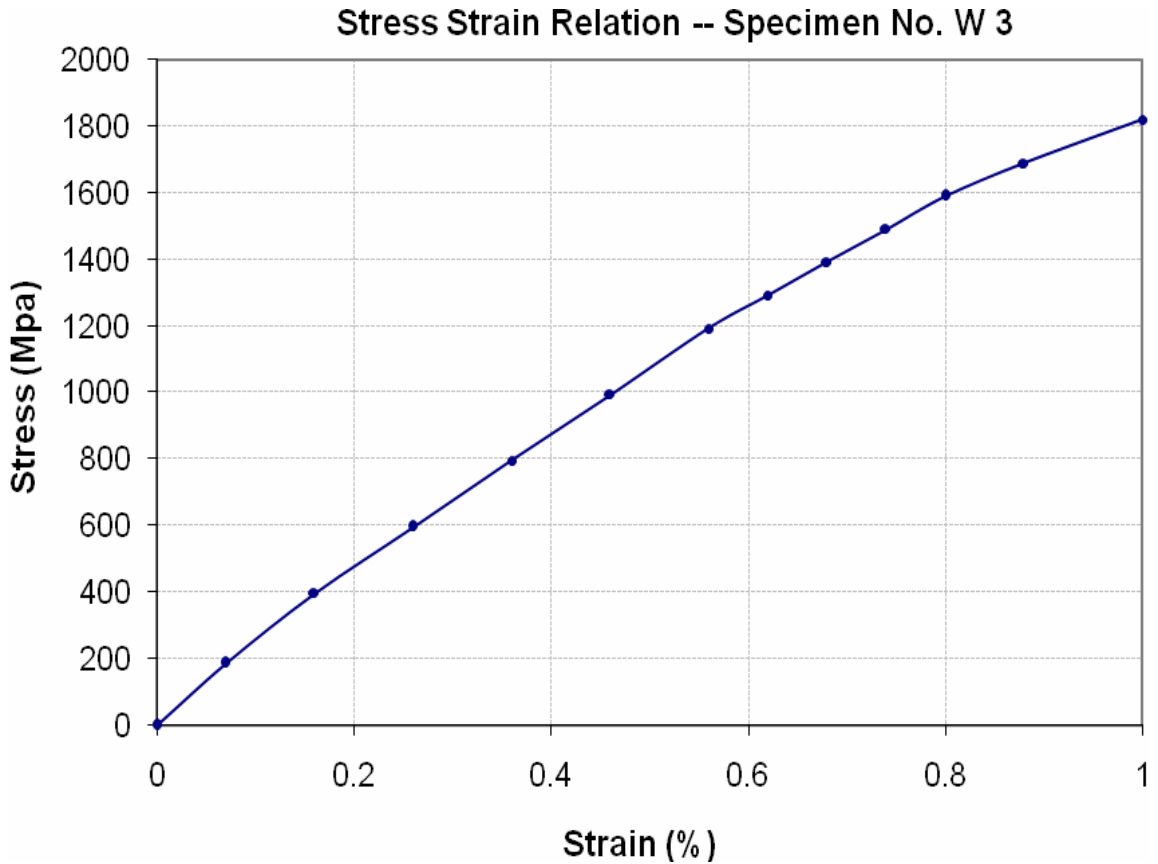
To,

M/S J.N & Co. - Habib Construction ServicesJv  
Karachi  
(Construction of Bridge at Korangi Causeway Karachi.)  
(M/s Wire Manufacturing Industry Ltd.)

Reference # CED/TFL **5507** (Dr. Rizwan Azam)  
Reference of the request letter # Nil

Dated: 13-08-2024  
Dated: 12-08-2024

**Graph** (Page – 4/4)



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Ref: CED/TFL/08/5508

Dated: 15-08-2024

Dated of Test: 15-08-2024

To

**Material Engineer**  
**New Metro City**  
**BSM Developers**  
**Mandi Bahauddin.**

Subject: **TESTING OF R.C.C. PIPE [ASTM-C76 - 08a] (Page -1/1)**

Reference to your letter No. NMC/MBD/LAB/73, dated 13-08.2024 on the subject cited above. One R.C.C. Pipe as received by us has been tested. The results are tabulated as under.

Sr. No	Nominal Size	Total Length	Loaded Length	External Diameter	Internal Diameter	Wall Thickness	Proof load	Ultimate Load	Proof Stress	Ultimate Stress
	(inch)	(foot)	(foot)	(inch)	(inch)	(inch)	(kg)	(kg)	Pound/Linear foot/foot	Pound/Linear foot/foot
1	9	7.76	7.37	11.22	8.86	1.18	7500	9500	3039	3849

**I/C Testing Laboratories**  
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To,

Project Manager  
CEEC NEPC II

Subject: ADB-401A Procurement of Plant - Design, Manufacture, Supply, Installation, Testing & Commissioning of 500kV Double Circuit Quad Bundle Transmission Line from Suki Kinari Hydro Power Station to Interconnection Point of Existing Neelum Jhelum 500kV Double Circuit Quad Bundle Transmission Line (approx. 75km), using ACSR "Bunting" Conductor

Reference # CED/TFL **5509** (Dr. Rizwan Azam)

Dated: 15-08-2024

Reference of the request letter # DD-401A-FA-3766

Dated: 12-08-2024

**Tension Test Report** (Page – 1/1)

Date of Test 15-08-2024

Gauge length 2 & 8 inches

Description Yoke Plate Steel Strip Tensile Test

Sr. No.	Designation	Size of Strip	X Section Area	Yield load	Breaking Load	Yield Stress	Ultimate Stress	Elongation	% Elongation	Gauge length (in)
1	Yoke Plate SR-4656 (bend)	32.70x17.90	585.33	27600	33300	463	558	0.80	40.00	2
2	Yoke Plate SR-4656 (new)	32.95x18.00	593.10	-----	32500	-----	538	0.80	40.00	2
3	Yoke Plate SR-4887 (new)	25.20x18.00	453.60	19100	25300	413	547	1.50	18.75	8
4	Yoke Plate SR-4887 (bend)	23.80x18.10	430.78	18300	23900	417	544	1.40	17.50	8
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
<b>Only Four Samples for Tensile Test</b>										
<b>Bend Test</b>										

Witness by Suhail Ashraf Minhas (NEPC-II), Sumraiz Bukhari (MKEC) and Sherbaz Khan (SA, RA Energy)

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