



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
Rasheed & Brothers
Construction of Capital Tower-59, Blue Area, Islamabad.

Reference # CED/TFL **3503** (Dr. M Kashif)

Dated: 20-06-2023

Reference of the request letter # ISB/CT-59/A-W/W-1-6/23

Dated: 17-06-2023

Tension Test Report (Page – 1/1)

Date of Test 22-06-2023

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)		% Elongation	Remarks/ Coil No.
	(mm)	(kg/km)	(kg/km)	(kg)	(kN)	(kg)	(kN)		
1	12.70 (1/2")	775.0	790.0	17400	170.69	19200	188.35	>3.50	xx
2	12.70 (1/2")	775.0	778.0	17000	166.77	19200	188.35	>3.50	xx
3	12.70 (1/2")	775.0	778.0	17200	168.73	19000	186.39	>3.50	xx
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-

Only three samples for Test

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



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To,

Resident Engineer
NESPAK
Construction of Multi-Level Grade Separation Flyover at Shahdra Morr, Lahore

Reference # CED/TFL **3504** (Dr. Usman Akmal)
Reference of the request letter # 4537/03/MSA/09/65

Dated: 20-06-2023
Dated: 17-06-2023

Tension Test Report (Page -1/1)

Date of Test 22-06-2023
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	4.209	10	1.255	1.27	1.237	38400	49800	66700	68420	86500	88800	1.80	22.5	B-3959
2	4.167	10	1.249	1.27	1.225	40800	54800	70900	73420	95200	98700	1.60	20.0	D-8493
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Note: only two samples for tensile and two samples for bend test														
Bend Test														
#10 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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To,
 Resident Engineer
 NESPAK
 Construction of Multi-Level Grade Separation Flyover at Shahdra Morr, Lahore

Reference # CED/TFL **3505** (Dr. Usman Akmal)
 Reference of the request letter # 4537/03/MSA/09/66

Dated: 20-06-2023
 Dated: 17-06-2023

Tension Test Report (Page -1/1)

Date of Test 22-06-2023
 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	4.146	10	1.246	1.27	1.219	40600	53800	70500	73440	93400	97400	1.80	22.5	A-929
2	4.166	10	1.249	1.27	1.225	43000	57400	74700	77400	99700	103400	1.40	17.5	A-931
3	4.188	10	1.252	1.27	1.231	42400	57000	73600	75920	99000	102100	1.60	20.0	B-3959
4	4.264	10	1.263	1.27	1.253	46600	60000	80900	81940	104200	105600	1.50	18.8	B-8493
5	4.263	10	1.263	1.27	1.253	46000	59800	79900	80920	103800	105200	1.40	17.5	E-9163
-	-	-	-	-	-	-	-	-	-	-	-	-	-	

Note: only five samples for tensile and five samples for bend test

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