

Test Performed by: Dr.Asad Ali Gillani

Ahmet KoC

RE Diamer Basha Consultants Group (DBCG)

NESPAK-ACE-MMP-MWH-POYRY-DOLSAR JV

(Diamer Basha Dam Project) (Contract MW-1: DAM Part (Civil Works) and Tangir Hydropower Works)

Client Reference No.: DBCG/Lab/PFJV/2024/022

Dated: 08-06-2024 **SOM**

Lab Ref: CED/SOM/4340(Page 1/1)

Dated: 24-06-2024

Test Type: Hardness Test

Sample Type: Anchorage Block & Wedges

Hardness Test Details:

Machine used: Avery Rockwell Hardness Testing Machine

(Minor Load: 10 Kgf Major Load: 90.0 kgf Scale: B)

Hardness Test Results

Sr #	Sample Type	Sample No.	Hardness
1	Anchorage Block	PTAB-S3-2024-03	HR –86.83 – B

Machine used: Avery Rockwell Hardness Testing Machine

(Minor Load: 10 Kgf Major Load: 50.0 kgf Scale: A)

Hardness Test Results

Sr #	Sample Type	Sample No.	Hardness
1	Wedge	PTW-S3-2024-03	HR –79.66 – A
2	Wedge	PTW-S3-2024-03	HR –80.66 – A
3	Wedge	PTW-S3-2024-03	HR –81.0 – A

Note: Please always confirm the results on web [www.uet-civil.edu.pk](http://www.uet-civil.edu.pk)

Zhang Dongping, Dy Manager

Test Performed By:

Dr. /Engr.

Asad Ali Gillani

PowerChina SEPCO1 Electric Power Constuction.Co Ltd. (500KV Nokhar Grid Station)

4339 (Page-1/1)

Client Reference: WB-10A-GS-SEPCP01-156

SOM Lab Ref:

Dated: 24-06-2024

Dated:

24-06-2024

Test: Tension Test

Test Specification:

ASTM-A-615

Guage Length: 200 mm

Sample Type:

MS Def 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)				
	kg/m	mm	mm	mm <sup>2</sup>	mm <sup>2</sup>	kN	kN	MPa	MPa	MPa	MPa	mm	mm	%	
1	2.158	19	18.71	284	275	140.50	188.50	495	511	664	686	30.0	200	15.0	
2	2.140	19	18.63	284	273	139.20	187.20	490	511	659	687	32.5	200	16.3	
3	0.876	12	11.92	113	112	58.20	77.00	515	522	681	690	30.0	200	15.0	
4	0.864	12	11.84	113	110	57.20	76.00	506	520	673	691	27.5	200	13.8	
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Witnessed By: Sohaib Ali (Sub Engr,NESPAK)

**BEND TEST:**

19mm	Sample bend through 180 degrees Satisfactorily without any crack	<b>Note:-</b>  Only Six Samples Received and Tested
12mm	Sample bend through 180 degrees Satisfactorily without any crack	

Note: Please always confirm the results of above report on web [www.uet-civil.edu.pk](http://www.uet-civil.edu.pk)

Waqas Ahmed Ghumman, PM  
 High-Q Constructions Lhr. (Const Of High-Q Mall at 3-A Gulberg II Lahore)

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

**Client Reference:** QC/HQ/CIVIL/217

**Dated:** 24-06-2024

**SOM Lab Ref:** CED/SOM/4337 (Page-1/1)

**Dated:** 24-06-2024

**Test:** Tension Test & Bend Test

**Test Specification:** ASTM-A 615

**Sample Type:** Deformed Bar

**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 <sup>2</sup>	mm <sup>2</sup>	kN	kN	MPa	MPa	MPa	MPa	mm	mm	%	
1	0.897	12	12.05	113	114	59.00	79.70	522	518	705	700	30.0	200	15.0	
2	0.897	12	12.06	113	114	59.20	79.70	523	519	705	698	30.0	200	15.0	
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**BEND TEST:**

12mm	Sample bend through 180 degrees Satisfactorily without any crack	<b>Note:-</b>  Only Three Samples Received and Tested

Note: Please always confirm the results of above report on web [www.uet-civil.edu.pk](http://www.uet-civil.edu.pk)

Maj Ghulam Abbas  
For ADH (QA) Centre Lahore.

Test Performed By: Dr. /Engr. Kashif

Client Reference: 24501/HD/Lab

Dated: 15-Jun 2024

Test: Tension Test & Bend Test

Gauge Length: 8 inch

SOM Lab

Ref: 4338 (Page-1/1)

Dated: 24-06-2024

Test Specification: ASTM-A-615

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 <sup>2</sup>	in <sup>2</sup>	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	0.668	4	0.500	0.20	0.196	6.24	8.38	68800	70200	92400	94290	1.10	8.0	13.8	
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**BEND TEST:**

# 4	Sample bend through 180 degrees Satisfactorily without any crack	<b>Note:-</b>  Only Two Samples Received and Tested

Note: Please always confirm the results of above report on web [www.uet-civil.edu.pk](http://www.uet-civil.edu.pk)

Engineer Muhammad Irshad  
 Dy Dir Dev. DHA Gujranwala.(Const Of Sec Comm Shops) (Villas Space)

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

**Client Reference:** 111/3/AD/Dev/Techno Time/54

**SOM Lab**

**Ref:** 4341 (Page-1/1)

**Dated:** 12-06-2024

**Dated:** 24-06-2024

**Test:** Tension Test & Bend Test

**Test Specification:** ASTM-A-615

**Gauge Length:** 8 inch

**Sample Type:** Deformed Bar (SJ 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 <sup>2</sup>	in <sup>2</sup>	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	1.466	6	0.741	0.44	0.431	14.44	18.47	72400	73920	92590	94520	1.40	8.0	17.5	
2	1.471	6	0.742	0.44	0.432	13.97	18.40	70000	71300	92230	93940	1.30	8.0	16.3	
3	0.661	4	0.497	0.20	0.194	6.27	7.92	69130	71270	87340	90040	1.10	8.0	13.8	
4	0.656	4	0.496	0.20	0.193	6.29	8.00	69360	71870	88240	91440	1.20	8.0	15.0	
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**BEND TEST:**

# 6	Sample bend through 180 degrees Satisfactorily without any crack	<b>Note:-</b>  Only Six Samples Received and Tested
# 4	Sample bend through 180 degrees Satisfactorily without any crack	

Note: Please always confirm the results of above report on web [www.uet-civil.edu.pk](http://www.uet-civil.edu.pk)

S Nouman UI Hassan Bukhari  
 APE Building Section DHA Gujranwala.(Const Of 10 Marla Villas, Block A)

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

**Client Reference:** 111/3/APE Works/Lab/1315

**SOM Lab**

**Ref:** 4342 (Page-1/1)

**Dated:** 14-06-2024

**Dated:** 24-06-2024

**Test:** Tension Test Test

**Test Specification:** ASTM-A-615

**Gauge Length:** 8 inch

**Sample Type:** Deformed Bar (SJ 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 <sup>2</sup>	in <sup>2</sup>	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	1.472	6	0.743	0.44	0.433	13.78	18.45	69080	70200	92480	93980	1.40	8.0	17.5	
2	1.478	6	0.743	0.44	0.434	13.78	18.42	69080	70040	92330	93610	1.40	8.0	17.5	
3	0.656	4	0.496	0.20	0.193	6.52	8.18	71940	74550	90150	93420	1.30	8.0	16.3	
4	0.651	4	0.493	0.20	0.191	6.49	8.15	71610	74980	89930	94170	1.20	8.0	15.0	
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**BEND TEST:**

# 6	Sample bend through 180 degrees Satisfactorily without any crack	<b>Note:-</b>  Only Six Samples Received and Tested
# 4	Sample bend through 180 degrees Satisfactorily without any crack	

Note: Please always confirm the results of above report on web [www.uet-civil.edu.pk](http://www.uet-civil.edu.pk)

Divisional Forest Officer

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

Kasur Forest Division at Changa Manga.(Const of B/wall with Grill at changa Manga Rest House)

Client Reference: 1268/AC

SOM Lab

Ref: 4343 (Page-1/1)

Dated: 12-06-2024

Dated: 24-06-2024

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 <sup>2</sup>	in <sup>2</sup>	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	1.529	6	0.756	0.44	0.449	15.26	19.69	76490	74960	98720	96740	1.10	8.0	13.8	
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**BEND TEST:**

--	No Bend test performed	<b>Note:-</b>  Only One Sample Received and Tested

Note: Please always confirm the results of above report on web [www.uet-civil.edu.pk](http://www.uet-civil.edu.pk)