

Manohar Lal,CRE

Test Performed By: Dr. /Engr. Nauman Khurram

Nespak,Gujranwala.(Const Of Dual Carriageway From GT Rd To Lahore-Sialkot Motorway)

Client Reference: 103/EW/GRW/TN/Lab/04

Dated : 31-07-2023

SOM Lab Ref: CED/SOM/2636(Page-1/1)

Dated : 31-07-2023

Test: Tension Test & Bend Test

Test Specification: ASTM-A 615

Sample Type: Deformed Bar (Mughal Steel)

Gauge Length: 200 m

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	m	%	
1	3.795	25	24.80	491	483	232.20	329.50	473	481	671	683	35.0	200	17.5	
2	3.840	25	24.96	491	489	258.00	345.70	526	528	704	707	35.0	200	17.5	
3	2.428	20	19.85	314	309	151.70	201.70	483	491	642	653	37.5	200	18.8	
4	2.448	20	19.93	314	312	150.50	200.00	479	483	637	642	40.0	200	20.0	
5	1.531	16	15.76	201	195	97.70	130.00	486	502	647	667	37.5	200	18.8	
6	1.538	16	15.79	201	196	99.50	130.50	495	508	649	667	35.0	200	17.5	
7	0.995	12	12.70	113	127	65.00	84.00	575	513	743	663	27.5	200	13.8	
8	0.995	12	12.70	113	127	66.50	84.70	588	525	749	669	27.5	200	13.8	
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**BEND TEST:**

25mm	Sample bend through 180 degrees Satisfactorily without any crack	<b>Note:-  Only Twelve Samples Received and Tested</b>
20mm	Sample bend through 180 degrees Satisfactorily without any crack	
16mm	Sample bend through 180 degrees Satisfactorily without any crack	
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)

Sheikhoo Steel

Test Performed By: Dr. /Engr. Waseem Abbas

Director Project, Sheikhoo Sugar Mills (Steel Div), Anwar Abad Kot Addu, Muzaffargarh.

Client Reference: Nil

SOM Lab

Ref: 2635 (Page-1a/1)

Dated: 24-07-2023

Dated: 31-07-2023

Test: Tension Test Test

Test Specification:

ASTM-A-615

Gauge Length: 8 h inc

Sample Type:

Deformed Bar (Sheikhoo 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	0.653	4	0.494	0.20	0.192	6.49	8.87	71610	74590	97800	101870	0.90	8.00	11.3	407-R
2	0.655	4	0.494	0.20	0.192	6.63	8.82	73070	76110	97230	101290	0.90	8.00	11.3	408-R
3	0.660	4	0.497	0.20	0.194	6.60	8.69	72730	74980	95770	98740	1.00	8.00	12.5	409-R
4	0.660	4	0.497	0.20	0.194	6.70	8.66	73850	76140	95550	98500	1.10	8.00	13.8	410-R
5	0.660	4	0.497	0.20	0.194	6.75	8.99	74420	76720	99150	102210	1.00	8.00	12.5	411-R
6	0.655	4	0.494	0.20	0.192	6.65	8.69	73290	76350	95770	99760	1.20	8.00	15.0	414-R
7	0.653	4	0.494	0.20	0.192	6.34	8.51	69920	72830	93860	97770	1.00	8.00	12.5	415-R
8	0.656	4	0.496	0.20	0.193	6.42	8.66	70820	73390	95550	99010	1.00	8.00	12.5	417-R
9	0.656	4	0.496	0.20	0.193	6.63	8.92	73070	75720	98360	101930	1.10	8.00	13.8	419-R
10	0.660	4	0.497	0.20	0.194	6.75	8.87	74420	76720	97800	100820	1.20	8.00	15.0	421-R

**BEND TEST:**

--	No Bend test performed	<b>Note:-  Only Ten Samples Received and Tested</b>

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

Sheikhoo Steel

Test Performed By: Dr. /Engr. Waseem Abbas

Director Project, Sheikhoo Sugar Mills (Steel Div), Anwar Abad Kot Addu, Muzaffargarh.

SOM Lab

Client Reference: Nil

Ref: 2635 (Page-1b/1)

Dated: 24-07-2023

Dated: 31-07-2023

Test: Tension Test Test  
inc

Test Specification: ASTM-A-615

Gauge Length: 8 h

Sample Type: Deformed Bar (Sheikhoo 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	0.653	4	0.494	0.20	0.192	6.68	8.74	73630	76700	96340	100350	1.20	8.00	15.00	422-R
2	0.655	4	0.494	0.20	0.192	6.75	8.82	74420	77520	97230	101290	1.20	8.00	15.00	423-R
3	0.661	4	0.497	0.20	0.194	6.65	8.69	73290	75560	95770	98740	1.30	8.00	16.03	426-R
4	0.654	4	0.494	0.20	0.192	6.47	8.63	71380	74360	95210	99180	1.10	8.00	13.08	427-R
5	0.655	4	0.494	0.20	0.192	6.42	8.61	70820	73770	94990	98940	1.30	8.00	16.03	428-R
6	0.664	4	0.498	0.20	0.195	6.63	8.84	73070	74940	97460	99960	1.10	8.00	13.08	429-R
7	0.665	4	0.498	0.20	0.195	6.68	8.82	73630	75520	97230	99730	1.30	8.00	16.03	430-R
8	0.660	4	0.497	0.20	0.194	6.70	8.92	73850	76140	98360	101400	1.10	8.00	13.08	431-R
9	0.657	4	0.496	0.20	0.193	6.70	9.12	73850	76530	100610	104260	1.40	8.00	17.05	435-R
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**BEND TEST:**

--	No Bend test performed	<b>Note:- Only Nine Samples Received and Tested</b>

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

Zahid Mughal  
C/O M/S Amanah Noor Residence Wapda Town, Lahore.

Test Performed By: Dr. /Engr. Waseem Abbas

Client Reference: Nil

Dated: 31-07-2023

Test: Tension Test & Bend Test  
inc

Gauge Length: 8 h

Test Specification:

Sample Type:

SOM Lab

Ref: 2637 (Page-1/1)

Dated: 31-07-2023

ASTM-A-615

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	2.650	8	0.996	0.79	0.779	23.01	33.51	64230	65140	93540	94860	1.40	8.00	17.5	
2	1.479	6	0.744	0.44	0.435	14.37	19.62	72050	72870	98360	99490	1.30	8.00	16.3	
3	0.652	4	0.494	0.20	0.192	6.57	8.72	72510	75530	96110	100120	1.00	8.00	12.5	
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**BEND TEST:**

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