

Arfan Nazir

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

Manager Civil, Nishat Mills Ltd. Lahore. Nishat Group (Dyeing &amp; Finishing Plant Lahore)

Client Reference: NDF/AST/002

SOM Lab Ref: 2640 (P-1/1)

Dated: 14-07-2023

Dated: 01-08-2023

Test: Tension Test

Test Specification: ASTM-A-615

20

Guage Length: 0 mm

Sample Type: MS Def Bar (Aziz 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)				
	kg/m	mm	mm	mm <sup>2</sup>	mm <sup>2</sup>	kN	kN	MPa	MPa	MPa	MPa	mm	m	%	
1	3.964	25	25.36	491	505	219.20	359.50	446	435	732	712	35.0	200	17.5	
2	3.967	25	25.37	491	505	218.50	359.20	445	433	732	711	37.5	200	18.8	
3	2.506	20	20.16	314	319	134.20	211.00	427	421	672	662	35.0	200	17.5	
4	2.504	20	20.15	314	319	135.20	211.00	431	424	672	662	37.5	200	18.8	
5	1.547	16	15.84	201	197	87.20	132.00	434	443	657	670	37.5	200	18.8	
6	1.554	16	15.88	201	198	89.70	142.20	446	454	707	719	32.5	200	16.3	
7	1.002	12	12.75	113	128	54.20	79.50	480	425	704	624	32.5	200	16.3	
8	1.000	12	12.74	113	127	54.90	79.20	486	431	701	622	35.0	200	17.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

**BEND TEST:**

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

Engr.M.Usman Meer

Test Performed By: Dr. /Engr. Nauman Khurram

Sinaco Engineers.(Const of Nation Foods Galaxy Project at FIEDMC Sahianwala,Faisalabad)

Client Reference: 00338-2023

SOM Lab

Ref: 2638 (Page-1/2)

Dated: 31-07-2023

Dated: 01-08-2023

Test: Tension Test & Bend Test

Test Specification: ASTM-A-615

Gauge Length: 8 inch

Sample Type: Deformed Bar (Ittefaq 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	0.673	4	0.502	0.20	0.198	6.12	7.70	67450	68130	84870	85730	1.10	8.0	13.8	
2	0.668	4	0.500	0.20	0.196	5.56	8.26	61270	62520	91050	92910	1.00	8.0	12.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

**BEND TEST:**

# 4	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)

Engr.M.Usman Meer

Test Performed By: Dr. /Engr. Nauman Khurram

Sinaco Engineers.(Const of Ghani Ceramics Limited Wall Tile Line at FIEDMC Sahianwala,Fsd)

Client Reference: 00337-2023

SOM Lab

Ref: 2638 (Page-2/2)

Dated: 31-07-2023

Dated: 01-08-2023

Test: Tension Test & Bend Test

Test Specification: ASTM-A-615

Gauge Length: 8 inch

Sample Type: Deformed Bar (Ittehad 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	1.500	6	0.749	0.44	0.441	15.19	19.16	76130	75960	96060	95840	1.40	8.0	17.5	
2	1.519	6	0.754	0.44	0.446	14.42	19.93	72300	71330	99890	98550	1.40	8.0	17.5	
3	0.668	4	0.500	0.20	0.196	5.73	8.38	63180	64470	92400	94290	1.20	8.0	15.0	
4	0.668	4	0.500	0.20	0.196	5.52	8.26	60930	62170	91050	92910	1.20	8.0	15.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

**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)

Muhammad Siddique  
Head QA/QC AL-A'ZAMIYYA BLOCK PHASE I Lahore.

Test Performed By: Dr. /Engr. Nauman Khurram

Client Reference: Alz./ST/003

SOM Lab

Ref: 2639 (Page-1/1)

Dated: 10-08-2023

Dated: 01-08-2023

Test: Tension Test & Bend Test

Test Specification: ASTM-A-615

Gauge Length: 8 inch

Sample Type: 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	2.644	8	0.995	0.79	0.777	25.23	32.52	70440	71610	90780	92300	1.50	8.0	18.8	
2	2.635	8	0.993	0.79	0.774	25.03	32.72	69870	71310	91350	93240	1.60	8.0	20.0	
3	0.664	4	0.498	0.20	0.195	6.47	8.26	71380	73210	91050	93390	1.10	8.0	13.8	
4	0.658	4	0.496	0.20	0.193	6.60	8.43	72730	75370	92960	96340	1.20	8.0	15.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

**BEND TEST:**

# 8	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)

Qasiser Nadeem

Test Performed By: Dr. /Engr. Nauman Khurram

A/XEN E&M GE(Air) Rafiqui.(Const Of Main Mriefing Room With Allied Facilities at PAF Base Rafiqui)

Client Reference: 6689/22/E-6

SOM Lab

Ref: 2641 (Page-1/1)

Dated: 31-07-2023

Dated: 01-08-2023

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	1.447	6	0.736	0.44	0.425	10.45	16.18	52380	54220	81090	83950	1.50	8.0	18.8	
2	1.441	6	0.734	0.44	0.423	10.37	16.00	51970	54050	80220	83440	1.50	8.0	18.8	
3	1.040	5	0.624	0.31	0.306	10.96	14.09	77960	78980	100230	101540	1.40	8.0	17.5	
4	1.037	5	0.623	0.31	0.305	10.40	13.81	73970	75190	98270	99880	1.30	8.0	16.3	
5	0.543	4	0.451	0.20	0.160	3.82	5.83	42160	52690	64300	80370	1.20	8.0	15.0	
6	0.551	4	0.454	0.20	0.162	4.00	5.93	44070	54400	65420	80770	1.30	8.0	16.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

**BEND TEST:**

# 6	Sample bend through 180 degrees Satisfactorily without any crack	<b>Note:-</b>  Only Nine Samples Received and Tested
# 5	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)

Muhammad Saleem Shahid

Test Performed By: Dr. /Engr.

Nauman  
Khurram

CM State Grid CEPET.(500/220/132KV Nokhar Substation Under ADB Loan No.3677)

Client Reference: CET/ADB-300AR/S/2023-306

SOM Lab

Ref: 2642 (Page-1a/1)

Dated: 01-08-2023

Dated: 01-08-2023

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	2.595	8	0.986	0.79	0.763	25.10	33.35	70070	72540	93120	96410	1.70	8.0	21.3	
2	2.651	8	0.996	0.79	0.779	26.22	36.11	73200	74230	100800	102220	1.40	8.0	17.5	
3	2.631	8	0.992	0.79	0.773	27.03	35.42	75470	77130	98890	101070	1.50	8.0	18.8	
4	2.633	8	0.993	0.79	0.774	24.52	33.51	68440	69860	93540	95480	1.50	8.0	18.8	
5	2.641	8	0.994	0.79	0.776	24.38	33.10	68070	69300	92400	94070	1.50	8.0	18.8	
6	2.633	8	0.993	0.79	0.774	25.38	33.89	70860	72330	94620	96580	1.40	8.0	17.5	
7	2.629	8	0.992	0.79	0.773	25.10	33.54	70070	71610	93630	95690	1.50	8.0	18.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

Witnessed By: Zahid (F.M EHVI NTDC), M.Adnan (Civil Engr)

**BEND TEST:**

Sr.(1-7)	Sample bend through 180 degrees Satisfactorily without any crack	<b>Note:-</b>  Only Fourteen 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)

Muhammad Saleem Shahid

Test Performed By: Dr. /Engr.

Nauman  
Khurram

CM State Grid CEPET.(500/220/132KV Nokhar Substation Under ADB Loan No.3677)

Client Reference: CET/ADB-300AR/S/2023-306

SOM Lab

Ref: 2642 (Page-1b/1)

Dated: 01-08-2023

Dated: 01-08-2023

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	2.625	8	0.991	0.79	0.771	23.85	32.74	66590	68230	91410	93660	1.70	8.0	21.3	
2	2.644	8	0.995	0.79	0.777	25.99	35.95	72570	73780	100370	102050	1.40	8.0	17.5	
3	2.643	8	0.995	0.79	0.777	25.86	35.70	72200	73410	99660	101330	1.40	8.0	17.5	
4	2.613	8	0.989	0.79	0.768	24.41	33.18	68160	70110	92630	95290	1.50	8.0	18.8	
5	2.622	8	0.991	0.79	0.771	24.31	33.23	67870	69550	92770	95060	1.60	8.0	20.0	
6	2.637	8	0.993	0.79	0.775	24.69	33.49	68930	70260	93490	95300	1.60	8.0	20.0	
7	2.637	8	0.993	0.79	0.775	24.82	33.86	69300	70640	94540	96370	1.50	8.0	18.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

Witnessed By: Zahid (F.M EHVI NTDC), M.Adnan (Civil Engr)

**BEND TEST:**

Sr.(1-7)	Sample bend through 180 degrees Satisfactorily without any crack	<b>Note:-</b>  Only Fourteen 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)