

Test Performed by: Dr. Asad Ali Gillani

Addl. Director (VEC)  
IESCO, Islamabad.  
Rawalpindi

Client Reference No.: 2461-65/CEO/IESCO/VEC

Dated: 16-01-2024

SOM Lab Ref: CED/SOM/3499 (Page-1/1)

Dated: 12-01-2024

Test Type: Flexural Strength Test & Crushing Strength Test

Sample Type: AC Pipe (150mm) (M/S Delux Chrysotile)

Standard: ASTM-C-875 - 98

#### Crushing Strength Test Results

Sample No.	Diameter (mm)		Length of the Tested Sample (mm)	Flexural Load (kN)
	Outer	Inner		
1	173.0	152.0	710	5.2

#### Flexural Strength Test Results

Sample No.	Diameter (mm)		Length of the Tested Sample (mm)	Crushing Load (kN)
	Outer	Inner		
1	172	152.4	1220	7.5

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

Plot No. 2, Bazar No. 6,  
Flat No 2, Pakeeza Markeet, 1-8/4,  
ISLAMABAD

Ref: CED/TFL/SOM/646

Dated: 15-3-2016

Client Ref: Nil

Dated: 15-3-2016

Subject: Testing of Asbestos Fiber Cement Transmission Pipes (8")

**Transverse Crushing Load Test as per ASTM C-875 - 98)**

S No.	Sample Type	Diameter		Wall Thickness (mm)	Test Length (mm)	Breaking Load (KN)
		Outer Dia (mm)	Iner Dia (mm)			
1	AC Pipe	177	148	12.5	304	3.45

**Longitudinal Bending Test as per ASTM C-875 - 98)**

S No.	Sample Type	Diameter		Wall Thickness (mm)	Test Span (mm)	Breaking Load (KN)
		Outer Dia (mm)	Iner Dia (mm)			
1	AC Pipe	177	148	12.5	1370	4.22

Lt.Col ® Muhammad Ibrahim

**Test Performed By:**

**Dr. /Engr.**

Irfan Ul Hassan

Senior Estate Engr. Sundar Industrial Estate.(Extension Of Jamia Masjid Phase II)

**Client Reference:** BOM/SIE/BCD10/1/24

**Dated**

: 10-01-2024

**SOM Lab Ref:** CED/SOM/2502(Page-1/1)

**Dated**

: 12-01-2024

**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	m	mm	mm <sup>2</sup>	mm <sup>2</sup>	kN	kN	MPa	MPa	MPa	MPa	mm	mm	%	
1	2.278	20	19.22	314	290	141.20	209.70	449	487	667	724	35.0	200	17.5	
2	2.274	20	19.21	314	290	138.00	210.20	439	477	669	726	37.5	200	18.8	
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**BEND TEST:**

20mm

Sample bend through 180 degrees Satisfactorily without any crack

**Note:-**

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.Najeeb Shahzad  
PM Air Heights Developers (Pvt) Ltd. Lahore.

**Test Performed By:** Dr. /Engr. Irfan Ul Hassan

**Client Reference:** Nil

**Dated** : 12-01-2024

**SOM Lab Ref:** CED/SOM/3496(Page-1/1)

**Dated** : 12-01-2024

**Test:** Tension Test & Bend Test

**Test Specification:** ASTM-A 615

**Sample Type:** Deformed Bar

**Gauge Length:** m  
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	m	mm	mm <sup>2</sup>	mm <sup>2</sup>	kN	kN	MPa	MPa	MPa	MPa	mm	m	%	
1	2.175	20	18.78	314	277	152.20	195.20	484	550	621	705	32.5	200	16.3	
2	2.173	20	18.78	314	277	150.00	194.70	477	542	620	704	32.5	200	16.3	
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**BEND TEST:**

20mm	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)

Tariq Saeed Shah  
Sr. Manager Civil Shangrila Foods (Pvt) Ltd. Karachi

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

Client Reference: Nil

SOM Lab

Ref: 3494 (Page-1/1)

Dated: 04-01-2024

Dated: 12-01-2024

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	2.680	8	1.002	0.79	0.788	24.33	33.10	67930	68100	92400	92640	1.40	8.0	17.5	
2	2.644	8	0.995	0.79	0.777	24.08	32.98	67220	68340	92060	93600	1.40	8.0	17.5	
3	1.476	6	0.743	0.44	0.434	14.95	20.13	74960	75990	100910	102310	1.10	8.0	13.8	
4	1.467	6	0.741	0.44	0.431	14.42	19.22	72300	73810	96320	98330	1.20	8.0	15.0	
5	0.675	4	0.502	0.20	0.198	6.44	8.63	71040	71760	95210	96170	1.30	8.0	16.3	
6	0.678	4	0.503	0.20	0.199	6.42	8.72	70820	71180	96110	96590	1.20	8.0	15.0	
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**BEND TEST:**

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

Shahzad Mukhtar Ahmad

Test Performed By:

Dr. /Engr.

Asad Ali Gillani

Project Manager Aitchison College Lahore.(Riding Pavilion,Aitchison College)

SOM Lab

Client Reference: Nil

Ref:

3495 (Page-1/1)

Dated: 11-01-2024

Dated:

12-01-2024

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	2.643	8	0.995	0.79	0.777	25.05	33.56	69920	71090	93680	95250	1.70	8.0	21.3	
2	1.484	6	0.745	0.44	0.436	14.75	19.37	73940	74610	97080	97970	1.30	8.0	16.3	
3	0.657	4	0.496	0.20	0.193	6.95	8.79	76660	79450	96900	100410	1.10	8.0	13.8	
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**BEND TEST:**

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

Muhammad Abdul Sattar  
Jalbani

**Test Performed By:** Dr. /Engr. Irfan Ul Hassan

ME Nespak PRSWSSP, Taunsa. (Procurement Of Civil Works, South-III, Tehsil Taunsa Pkg TAU-03)

**Client Reference:** NESPAK/PRSWSSP/TAUNSA/ME/76

**SOM Lab**

**Ref:** 3497 (Page-1/2)

**Dated:** 09-01-2024

**Dated:** 12-01-2024

**Test:** Tension Test & Bend Test

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

**Gauge Length:** 8 inch

**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	2.583	8	0.983	0.79	0.759	26.17	34.40	73050	76040	96050	99970	1.40	8.0	17.5	
2	1.481	6	0.744	0.44	0.435	15.06	19.62	75470	76340	98360	99490	1.50	8.0	18.8	
3	0.664	4	0.498	0.20	0.195	6.93	9.19	76440	78400	101390	103990	1.20	8.0	15.0	
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**BEND TEST:**

--	No Bend test performed	<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)

Muhammad Abdul Sattar  
Jalbani

**Test Performed By:** Dr. /Engr. Irfan Ul Hassan

ME Nespak PRSWSSP, Taunsa. (Procurement Of Civil Works, South-III, Tehsil Taunsa Pkg TAU-03)

**Client Reference:** NESPAK/PRSWSSP/TAUNSA/ME/75

**SOM Lab**

**Ref:** 3497 (Page-2/2)

**Dated:** 09-01-2024

**Dated:** 12-01-2024

**Test:** Tension Test & Bend Test

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

**Gauge Length:** 8 inch

**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	2.576	8	0.982	0.79	0.757	25.79	34.17	72000	75140	95390	99550	1.50	8.0	18.8	
2	2.575	8	0.982	0.79	0.757	26.50	34.68	73990	77220	96820	101040	1.40	8.0	17.5	
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**BEND TEST:**

# 8	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)



Lahore.

**Client Reference:** Nil

**Dated:** 12-01-2024

**Test:** Tension Test & Bend Test

**Gauge Length:** 8 inch

**SOM Lab**

**Ref:** 3498 (Page-1/1)

**Dated:** 12-01-2024

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

**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	1.436	6	0.733	0.44	0.422	12.51	19.34	62700	65370	96930	101060	1.40	8.0	17.5	
2	0.669	4	0.501	0.20	0.197	5.20	7.46	57330	58200	82290	83540	1.30	8.0	16.3	
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**BEND TEST:**

--	No Bend test performed	<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)

QA/QC Deptt. Bahria Town Lhr. (Recycling & Underground W/Tank M Ali Jinnah Masjid Block D)

**Client Reference:** QA/QC/Steel-3515

**Dated:** 12-01-2024

**Test:** Tension Test & Bend Test

**Gauge Length:** 8 inch

**SOM Lab**

**Ref:** 3500 (Page-1/1)

**Dated:** 12-01-2024

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

**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	0.667	4	0.500	0.20	0.196	4.99	6.83	55080	56210	75320	76850	1.20	8.0	15.0	
2	0.667	4	0.500	0.20	0.196	5.10	7.00	56210	57350	77230	78800	1.30	8.0	16.3	
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**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)

Dy Dir Infra. DHA Gujranwala.(Sector L)

**Client Reference:** 111/15/DD/RS/Lab/Sec L/676

**Dated:** 12-01-2024

**Test:** Tension Test & Bend Test

**Gauge Length:** 8 inch

**Test Specification:**

**Sample Type:**

**SOM Lab**

**Ref:**

**Dated:**

3501 (Page-1/1)

12-01-2024

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	1.516	6	0.754	0.44	0.446	14.17	20.03	71020	70070	100400	99050	1.40	8.0	17.5	Kamran
2	1.469	6	0.742	0.44	0.432	15.39	21.07	77160	78580	105610	107570	1.20	8.0	15.0	Kamran
3	1.475	6	0.743	0.44	0.433	13.73	19.11	68830	69940	95800	97350	1.30	8.0	16.3	FF
4	1.493	6	0.748	0.44	0.439	14.19	19.39	71130	71290	97180	97410	1.40	8.0	17.5	FF
5	0.669	4	0.501	0.20	0.197	7.29	9.12	80370	81600	100610	102140	1.30	8.0	16.3	FF
6	0.669	4	0.501	0.20	0.197	7.77	9.63	85660	86960	106230	107840	1.20	8.0	15.0	FF
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**BEND TEST:**

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