

Major Muhammad Aslam (Retd)

Test Performed By:

Dr. /Engr.

S. Asad Ali Gillani

Resident Engineer, Penta Square Project, Al-Imam Enterprises (Pvt.) Ltd. DHA Phase-V, Lahore

Client Reference: Al-Imam/746/PS-1/DHA/LHE/700

Dated: 27-10-2021

SOM Lab Ref: CED/SOM/5217(Page-1/1)

Dated: 28-10-2021

Test: Tension Test & Bend Test

Test Specification: ASTM-A 615

Sample Type: M S Deformed Bar (SJ Steel)

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	0.990	12	12.67	113	126	65.70	83.20	581	522	736	661	35.0	200	17.5	
2	0.993	12	12.69	113	127	65.00	84.20	575	514	744	666	32.5	200	16.3	
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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)

Muhammad Waseem Bari  
P.E (Civil), SWP (WASO), (PAEC) D.G. Khan

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

Client Reference: SWP/W(1814)/2018/2055

SOM Lab

Ref: 5215(Page-1/1)

Dated: 27-10-2021

Dated: 28-10-2021

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	2.759	8	1.016	0.79	0.811	22.68	30.89	63320	61680	86230	84000	1.30	8.0	16.3	
2	2.573	8	0.981	0.79	0.756	25.56	32.69	71350	74550	91270	95370	1.30	8.0	16.3	
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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)

Prime Steel  
Lahore

Test Performed By:

Dr. /Engr.

S. Asad Ali  
Gillani

Client Reference: Nil

Dated: 28-10-2021

Test: Tension Test & Bend Test

Gauge Length: 8 inch

Test Specification:

Sample Type:

SOM Lab

Ref: 5216(Page-1/1)

Dated: 28-10-2021

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	0.638	4	0.488	0.20	0.187	3.94	5.58	43510	46530	61490	65760	1.10	8.0	13.8	
2	0.646	4	0.492	0.20	0.190	3.89	5.52	42940	45200	60930	64130	1.00	8.0	12.5	
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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)

Maj Adnan khalid®

**Test Performed By:** Dr. /Engr.

S. Asad Ali  
Gillani

Dy Dir MTL, DHA Sector-A, Block Commercial Ph-VI, Lahore Cantt. (M/S Construct)

**Client Reference:** 408/241/Estb/Lab/146/05

**SOM Lab**

**Ref:** 5167 (Page-1/1)

**Dated:** 20-10-2021

**Dated:** 20-10-2021

**Test:** Tension Test & Bend Test

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

ASTM-A-615

**Gauge Length:** 8 inch

**Sample Type:** Deformed Bar (Kamran Steel)

Deformed Bar (Kamran 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	2.655	8	0.997	0.79	0.780	28.24	36.77	78830	79840	102650	103960	1.20	8.0	15.0	
2	2.668	8	0.999	0.79	0.784	28.54	37.00	79680	80290	103300	104090	1.20	8.0	15.0	
3	1.499	6	0.749	0.44	0.441	13.30	18.93	66680	66530	94880	94670	1.30	8.0	16.3	
4	1.494	6	0.748	0.44	0.439	13.12	18.40	65760	65910	92230	92440	1.30	8.0	16.3	
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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	

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

Engr. Naveed Sadiq  
Resident Engineer, Orbit Developers Private Limited

Test Performed By:

Dr. /Engr.

S. Asad Ali  
Gillani

Client Reference: Nil

Dated: 28-10-2021

Test: Tension Test & Bend Test

Gauge Length: 8 inch

Test Specification:

Sample Type:

SOM Lab

Ref: 5218(Page-1/1)

Dated: 28-10-2021

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	2.602	8	0.987	0.79	0.765	22.63	32.77	63180	65240	91490	94480	1.40	8.0	17.5	
2	2.658	8	0.997	0.79	0.781	23.60	33.74	65880	66640	94200	95280	1.40	8.0	17.5	
3	0.668	4	0.500	0.20	0.196	6.03	8.28	66550	67910	91280	93140	1.20	8.0	15.0	
4	0.662	4	0.498	0.20	0.195	5.91	8.44	65200	66870	93080	95460	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 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)

Javed Iqbal  
ZZ Associates, Lahore

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

Client Reference: ZZA/UET/01-21

SOM Lab

Ref: 5219(Page-1/1)

Dated: 27-10-2021

Dated: 28-10-2021

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	2.632	8	0.992	0.79	0.773	24.36	31.88	68020	69510	88990	90950	1.70	8.0	21.3	
2	2.655	8	0.997	0.79	0.780	26.57	33.23	74190	75140	92770	93960	1.40	8.0	17.5	
3	1.466	6	0.741	0.44	0.431	15.97	19.11	80070	81740	95800	97800	1.40	8.0	17.5	
4	1.480	6	0.744	0.44	0.435	16.13	19.08	80830	81760	95650	96750	1.20	8.0	15.0	
5	0.674	4	0.502	0.20	0.198	7.21	8.92	79470	80280	98360	99350	1.20	8.0	15.0	
6	0.683	4	0.506	0.20	0.201	7.92	9.50	87340	86910	104770	104240	1.00	8.0	12.5	
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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)

Yasir Ahmad  
GM-Works, FF Steel Lahore

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

Client Reference: Nil  
Dated: 25-10-2021  
Test: Tension Test & Bend Test  
Gauge Length: 8 inch

SOM Lab  
Ref: 5220(Page-1/1)  
Dated: 28-10-2021  
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	2.615	8	0.989	0.79	0.768	24.08	34.20	67220	69150	95480	98210	1.60	8.0	20.0	
2	2.619	8	0.990	0.79	0.770	24.31	34.53	67870	69640	96390	98890	1.70	8.0	21.3	
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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)

Asim Ishaq  
Principal, The Trust School Aamir Town Harbanspura, Lahore

Test Performed By:

Dr. /Engr.

S. Asad Ali  
Gillani

Client Reference: SBL/2021/UET-TEDDS/1223

Dated: 28-10-2021

Test: Tension Test & Bend Test

Gauge Length: 8 inch

Test Specification:

Sample Type:

SOM Lab

Ref: 5221(Page-1/1)

Dated: 28-10-2021

ASTM-A-615

Deformed Bar (Model 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	13.10	18.52	65660	66720	92840	94340	1.50	8.0	18.8	
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**BEND TEST:**

# 6	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)



Abdul Haq  
Project Director (South-3), WASO, PAEC, D.G. Khan

Test Performed By: Dr. /Engr. M. Rizwan Riaz

Client Reference: WASO-CMD-Loi-75/C

SOM Lab

Ref: 5222(Page-1/1)

Dated: 18-10-2021

Dated: 28-10-2021

Test: Tension Test & Bend Test

Test Specification: ASTM-A-615

Gauge Length: 8 inch

Sample Type: Deformed Bar

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	1.498	6	0.748	0.44	0.440	14.95	19.49	74960	74960	97690	97690	1.50	8.0	18.8	
2	1.475	6	0.743	0.44	0.433	15.57	19.69	78020	79290	98720	100310	1.20	8.0	15.0	
3	0.664	4	0.498	0.20	0.195	6.60	8.36	72730	74600	92180	94540	1.00	8.0	12.5	
4	0.665	4	0.498	0.20	0.195	6.19	8.02	68230	69980	88470	90740	1.30	8.0	16.3	
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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)

Resident Engineer,

**Test Performed By:**

**Dr. /Engr. S Asad Ali Gillani**

ESS-I-AAR Consultant, Old Chinot Road Chah Tootan Wala, Jhang City Near Madras Dara ul Raza

**Client Reference:** 1130

**SOM Lab**

**Ref:** 5223(Page-1/1)

**Dated:** 01-10-2021

**Dated:** 28-10-2021

**Test:** Tension 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	1.416	6	0.728	0.44	0.416	11.03	17.13	55290	58480	85840	90790	1.30	8.0	16.3	
2	1.413	6	0.727	0.44	0.415	10.96	16.87	54930	58240	84560	89660	1.10	8.0	13.8	
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**BEND TEST:**

# 6	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)

Hussain Abid

Test Performed By:

Dr. /Engr. S. Asas Ali Gillani

Planning & Coordination Engineer, Ittefaq Building Solutions (Pvt) Ltd. Lahore (Master Textile Mills Ltd.)

Client Reference: IBS/M-7/Steel/27-10-21

SOM Lab

Ref: 5224(Page-1/2)

Dated: 28-10-2021

Dated: 28-10-2021

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	0.655	4	0.494	0.20	0.192	5.93	7.80	65420	68150	85990	89580	1.20	8.0	15.0	
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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)

Hussain Abid

**Test Performed By:** Dr. /Engr. S. Asas Ali Gillani

Planning & Coordination Engineer, Ittefaq Building Solutions (Pvt) Ltd. Lahore (Master Textile Mills Ltd.)

**Client Reference:** IBS/M-7/Steel/27-10-21

**SOM Lab**

**Ref:** 5224(Page-2/2)

**Dated:** 28-10-2021

**Dated:** 28-10-2021

**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	2.626	8	0.991	0.79	0.772	24.57	33.33	68590	70190	93060	95230	1.50	8.0	18.8	
2	1.587	6	0.770	0.44	0.466	14.32	20.61	71790	67790	103310	97550	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)



# TEST REPORT

## STRENGTH OF MATERIALS LABORATORY CIVIL ENGINEERING DEPARTMENT

University of Engineering & Technology, Lahore-54890, Pakistan.  
Email: Materials.Lab.ced.Lhr@gmail.com Ph: 0335-1301410

ORIGINAL  
A copy of the report has been retained in the Lab for record.  
Sr. No: **16579**

M Furqan Noshad

Test Performed By:

Dr. /Engr. S. Asad Ali Gillani

Construction Manager, CM Engg, CMPAK Project, Site ID: 52563,52617,52641,52643,52649,52663,51171,52039,52616,52624

Client Reference: CME/Steel/CMPAK/331

SOM Lab Ref: 2482 (Page-2/2)

Dated: 01-05-2020

Dated: 12-05-2020

Test: Tension Test & Bend Test

Test Specification:

ASTM-A 615

Guage Length: 200 mm

Sample Type:

M S 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)				
	kg/m	mm	mm	mm <sup>2</sup>	mm <sup>2</sup>	kN	kN	MPa	MPa	MPa	MPa	mm	mm	%	
1	3.855	25	25.00	491	491	236.20	313.20	481	482	638	638	25.0	200	12.5	
2	3.861	25	25.03	491	492	228.20	309.50	465	464	630	630	25.0	200	12.5	
3	2.221	20	18.98	314	283	144.70	178.20	461	512	568	630	27.5	200	13.8	
4	2.223	20	18.99	314	283	144.20	181.00	459	510	576	640	30.0	200	15.0	
5	1.012	12	12.81	113	129	61.00	89.00	540	474	788	691	35.0	200	17.5	
6	1.013	12	12.82	113	129	58.50	89.00	518	454	788	690	37.5	200	18.8	
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-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

### BEND TEST:

25mm	Sample bend through 180 degrees Satisfactorily without any crack
20mm	Sample bend through 180 degrees Satisfactorily without any crack
12mm	Sample bend through 180 degrees Satisfactorily without any crack

Note:-  
Only Nine Samples Received and Tested

Note: Please always confirm the results of above report on web www.uet-civil.edu.pk

*Report is checked & verified as per University record*



*S. Asad Ali Gillani*  
12-05-2020  
DIRECTOR

OFFICIAL SEAL

Note:





# TEST REPORT

## STRENGTH OF MATERIALS LABORATORY

### CIVIL ENGINEERING DEPARTMENT

University of Engineering & Technology, Lahore-54890, Pakistan.  
 Email: Materials.Lab.ced.Lhr@gmail.com Ph: 0335-1301410

**ORIGINAL**  
 A copy of the report has been retained in the Lab for record.

Sr. No: **19S27**

M Furqan

**Test Performed By:**

Dr. /Engr. Nauman Khurram

Project Manager, CME, Project CMPAK, Site ID: 53147,52471,50686,51126,51328,51800,52295,52871,53145

**Client Reference:** CME/Steel/CMPAK/305

**SOM Lab Ref:** 4554(Page-1/1)

**Dated:** 18-06-2021

**Dated:** 25-06-2021

**Test:** Tension Test & Bend Test

**Test Specification:**

ASTM-A 615

**Guage Length:** 200 mm

**Sample Type:**

M S Deformed bar

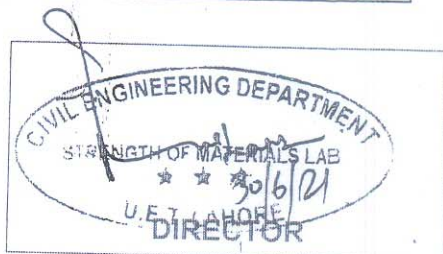
S.No.	Weight	Dia.		Area		Yield Load	Ultimate Load	Yield Stress		Ult. Stress		Elongation	Gauge Length	%age Elongation	Remarks
		Nominal	Calculated	Nominal	Calculated			(according to nominal area)	(according to measured area)	(according to nominal area)	(according to measured area)				
	kg/m	mm	mm	mm <sup>2</sup>	mm <sup>2</sup>	kN	kN	MPa	MPa	MPa	MPa	mm	mm	%	
1	3.882	25	25.11	491	495	223.20	335.20	455	451	683	678	30.0	200	15.0	
2	3.874	25	25.07	491	493	219.20	331.20	446	445	675	672	37.5	200	18.8	
3	2.178	20	18.80	314	278	119.00	180.20	379	429	574	650	37.5	200	18.8	
4	2.169	20	18.76	314	276	118.50	179.50	377	429	572	650	37.5	200	18.8	
5	1.590	16	16.06	201	203	92.00	134.20	458	455	668	663	35.0	200	17.5	
6	1.574	16	15.98	201	201	90.50	132.50	450	452	659	661	40.0	200	20.0	
7	0.978	12	12.60	113	125	55.50	84.00	491	446	743	674	35.0	200	17.5	
8	0.982	12	12.62	113	125	55.70	85.20	493	446	754	682	25.0	200	12.5	
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-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

**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)

*Report is checked & verified as per University records*



Note:





**TEST REPORT**  
**STRENGTH OF MATERIALS LABORATORY**  
**CIVIL ENGINEERING DEPARTMENT**  
 University of Engineering & Technology, Lahore-54890, Pakistan.  
 Email: Materials.Lab.ced.Lhr@gmail.com Ph: 0335-1301410

**ORIGINAL**  
 A copy of the report has been retained in the Lab for record.  
**18796**  
 Sr. No:

M Furqan Noshad (PM)

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

CIVIL ENGR. (Pvt) Ltd. CMPAK Project Site ID: 52539,51800,52869,52897,52900,52903,52946,52949,52951,52952,52817,52807,52866,52897

Client Reference: CME/Steel/CMPAK/346 SOM Lab Ref: 3892 (Page-1 of 1)  
 Dated: 08-02-2021 Dated: 22-02-2021

Test: Tension Test & Bend Test Test Specification: ASTM-A 615  
 Gauge Length: 200 mm Sample Type: M S Deformed bar

S.No.	Weight	Dia.		Area		Yield Load	Ultimate Load	Yield Stress		Ult. Stress		Elongation	Gauge Length	%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	4.107	25	25.81	491	523	227.70	346.70	464	436	706	663	45.0	200	22.5	
2	3.893	25	25.13	491	496	215.50	330.70	439	435	674	667	42.5	200	21.3	
3	2.212	20	18.94	314	282	123.50	193.00	393	439	615	685	42.5	200	21.3	
4	2.246	20	19.09	314	286	120.70	191.70	384	422	611	670	37.5	200	18.8	
5	1.542	16	15.81	201	196	90.30	134.50	449	460	669	685	32.5	200	16.3	
6	1.568	16	15.95	201	200	92.00	13.00	458	461	65	66	37.5	200	18.8	
7	0.972	12	12.56	113	124	55.70	82.50	493	450	730	667	37.5	200	18.8	
8	0.958	12	12.46	113	122	56.70	84.90	502	465	751	696	30.0	200	15.0	
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**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)

*Report is checked & verified as per University record*  
*28-10-2021*

*[Signature]*  
 DIRECTOR

**DEPARTMENTAL SEAL**  
 CIVIL ENGINEERING DEPARTMENT  
 STRENGTH OF MATERIALS LAB.  
 U.E.T. LAHORE

- Note: The above test results pertain to sample(s) provided to this laboratory and should not be reproduced in parts. The supplied samples were Sealed / Unsealed / Unsigned / Signed. This laboratory does not accept the responsibility that the supplied samples are truly representative sample(s) of the batch / lot or stock of a particular production. This laboratory agrees to take every reasonable precaution to ensure validity of its test results, it assumes no liability thereof beyond the amount of the fee charged for the test(s).
- The client shall assume full responsibility for the ethical use of these test results and laboratory shall be held free from any / all claims, which may result from the use of such data by the client or others.
  - The contents of this report cannot be, in any manner, used for the publicity of the product or any advertisement.
  - The interpretation right of this test report lies with the laboratory and the test report is copyright protected.





# TEST REPORT

## STRENGTH OF MATERIALS LABORATORY

### CIVIL ENGINEERING DEPARTMENT

University of Engineering & Technology, Lahore-54890, Pakistan.  
 Email: Materials.Lab.ced.Lhr@gmail.com Ph: 0335-1301410

**ORIGINAL**  
 A copy of the report has been retained in the Lab for record.

Sr. No: **19936**

M. Furqan (Project Manager)

**Test Performed By:**

Dr. /Engr. S. Asad Ali Gillani

CME Engg. (Pvt) Ltd. CMPAK Project Site ID: 52391,52976,51227,51229,53190,53220, 52559

**Client Reference:** CME/Steel/CMPAK/306

**SOM Lab Ref:** 4625 (Page-1/1)

**Dated:** 02-07-2021

**Dated:** 08-07-2021

**Test:** Tension Test & Bend Test

**Test Specification:**

ASTM-A 615

**Gauge Length:** 200 mm

**Sample Type:**

M S 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)				
	kg/m	mm	mm	mm <sup>2</sup>	mm <sup>2</sup>	kN	kN	MPa	MPa	MPa	MPa	mm	mm	%	
1	3.965	25	25.36	491	505	265.20	338.20	540	526	689	670	30.0	200	15.0	
2	3.993	25	25.45	491	509	281.20	354.00	573	553	721	696	30.0	200	15.0	
3	2.253	20	19.12	314	287	169.00	213.20	538	589	679	743	30.0	200	15.0	
4	2.242	20	19.07	314	286	168.20	213.20	536	589	679	747	27.5	200	13.8	
5	1.561	16	15.91	201	199	89.70	134.00	446	452	667	674	37.5	200	18.8	
6	1.497	16	15.58	201	191	86.20	129.20	429	452	643	678	40.0	200	20.0	
7	0.975	12	12.58	113	124	66.20	85.20	586	533	754	686	30.0	200	15.0	
8	1.010	12	12.80	113	129	57.20	88.00	506	445	779	685	35.0	200	17.5	
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*Report is checked & verified as per University record*

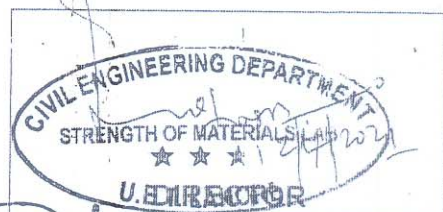
*S. Asad Ali Gillani 28-10-2021*

**BEND TEST:**

25mm	Sample bend through 180 degrees Satisfactorily without any crack
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:-**  
 Only Twelve 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)



**OFFICIAL SEAL**

Note:





# TEST REPORT

## STRENGTH OF MATERIALS LABORATORY

### CIVIL ENGINEERING DEPARTMENT

University of Engineering & Technology, Lahore-54890, Pakistan.  
Email: Materials.Lab.ced.Lhr@gmail.com Ph: 0335-1301410

**ORIGINAL**  
A copy of the report has been retained in the Lab for record.

Sr. No: **19316**

M Furqan Noshad PM,

Test Performed By: Dr. /Engr. Nauman Khurram

CME, CMPAK Project Site ID: 52980, 52530, 52982, 52822, 52517, 50686, 51800, 51126, 52295, 52981, 51328

Client Reference: CME/Steel/CMPAK/350

SOM Lab Ref: 4210(Page-1/1)

Dated: 10-04-2021

Dated: 19-04-2021

Test: Tension Test & Bend Test

Test Specification:

ASTM-A 615

Guage Length: 200 mm

Sample Type:

M S 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)				
	kg/m	mm	mm	mm <sup>2</sup>	mm <sup>2</sup>	kN	kN	MPa	MPa	MPa	MPa	mm	mm	%	
1	3.912	25	25.18	491	498	223.50	336.70	455	449	686	677	45.0	200	22.5	
2	3.925	25	25.23	491	500	224.00	337.20	456	448	687	675	42.5	200	21.3	
3	2.266	20	19.17	314	289	147.20	185.00	469	510	589	641	40.0	200	20.0	
4	2.200	20	18.89	314	280	143.20	191.20	456	511	609	683	42.5	200	21.3	
5	1.502	16	15.61	201	191	107.70	126.00	536	563	627	659	37.5	200	18.8	
6	1.522	16	15.71	201	194	111.20	127.50	553	574	634	658	25.0	200	12.5	
7	0.989	12	12.66	113	126	56.70	82.50	502	451	730	656	32.5	200	16.3	
8	0.985	12	12.64	113	126	57.20	83.20	506	456	736	663	35.0	200	17.5	
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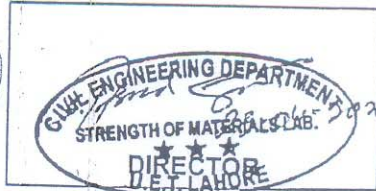
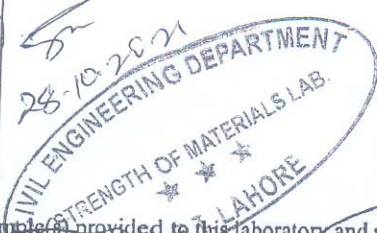
**BEND TEST:**

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)

*Report is checked & verified as per university record*

**OFFICIAL SEAL**



**Note:**

- The above test results pertain to sample(s) provided to this laboratory and should not be reproduced in parts.
- The supplied samples were Sealed / Unsealed / Unsigned / Signed. This laboratory does not accept the responsibility that the supplied samples are truly representative sample(s) of the batch / lot or stock of a particular production.
- While this laboratory agrees to take every reasonable precaution to ensure validity of its test results, it assumes no liability thereof beyond the amount of the fee charged for the test(s).
- The client shall assume full responsibility for the ethical use of these test results and laboratory shall be held free from any / all claims, which may result from the use of such data by the client or others.
- The contents of this report cannot be, in any manner, used for the publicity of the product or any advertisement.
- The interpretation right of this test report lies with the laboratory and the test report is copyright protected.





# TEST REPORT

## STRENGTH OF MATERIALS LABORATORY

### CIVIL ENGINEERING DEPARTMENT

University of Engineering & Technology, Lahore-54890, Pakistan.  
Email: Materials.Lab.ced.Lhr@gmail.com Ph: 0335-1301410

ORIGINAL  
A copy of the report has been retained in the Lab for record.

Sr. No: **19092**

M Imran Akhtar(PM) Test Performed By: Dr. /Engr. S. Asad Ali Gillani  
 CMPAK Project Site ID: 52559,52615,52980,52978,52870,52943,52950,52941,52917

Client Reference: CME/Steel/CMPAK/349 SOM Lab Ref: 4046 (Page-2/2)  
 Dated: 10-03-2021 Dated: 16-03-2021  
 Test: Tension Test & Bend Test Test Specification: ASTM-A 615  
 Gauge Length: 200 mm Sample Type: M S 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)				
	kg/m	mm	mm	mm <sup>2</sup>	mm <sup>2</sup>	kN	kN	MPa	MPa	MPa	MPa	mm	mm	%	
1	3.903	25	25.16	491	497	213.50	329.50	435	430	671	663	40.0	200	20.0	
2	3.895	25	25.13	491	496	214.50	330.50	437	433	673	667	37.5	200	18.8	
3	2.180	20	18.81	314	278	124.70	191.70	397	449	611	691	35.0	200	17.5	
4	2.184	20	18.82	314	278	125.00	192.20	398	450	612	691	37.5	200	18.8	
5	1.505	16	15.62	201	192	111.20	134.00	553	581	667	699	27.5	200	13.8	
6	1.496	16	15.58	201	191	109.20	132.00	543	574	657	693	27.5	200	13.8	
7	0.989	12	12.66	113	126	57.70	83.20	511	459	736	661	37.5	200	18.8	
8	0.987	12	12.65	113	126	59.00	83.20	522	470	736	662	40.0	200	20.0	
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**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)

*Report is checked & verified as per university records*  
*S. Asad*



- Note:**
- The above test results pertain to sample(s) provided to this laboratory and should not be reproduced in parts.
  - The supplied samples were Sealed / Unsealed / Unsigned / Signed / This laboratory does not accept the responsibility that the supplied samples are truly representative sample(s) of the batch / lot or stock of a particular production.
  - While this laboratory agrees to take every reasonable precaution to ensure validity of its test results, it assumes no liability thereof beyond the amount of the fee charged for the test(s).
  - The client shall assume full responsibility for the ethical use of these test results and laboratory shall be held free from any / all claims, which may result from the use of such data by the client or others.
  - The contents of this report cannot be, in any manner, used for the publicity of the product or any advertisement.
  - The interpretation right of this test report lies with the laboratory and the test report is copyright protected.





# TEST REPORT

## STRENGTH OF MATERIALS LABORATORY

### CIVIL ENGINEERING DEPARTMENT

University of Engineering & Technology, Lahore-54890, Pakistan.  
Email: Materials.Lab.ced.Lhr@gmail.com Ph: 0335-1301410

ORIGINAL  
A copy of the report has been retained in the Lab for record.

17892

Sr. No: \_\_\_\_\_

M Furqan Noshad (PM) Test Performed By: Dr. /Engr. S. Asad Ali Gillani  
 CM Engg. (Pvt) Ltd, CMPAK Project Site ID: 51230,52527,52550,52151,52742,51260,52834,52692,51359,52830

Client Reference: CME/Steel/CMPAK/343 SOM Lab Ref: 3303 (Page-3/3)  
 Dated: 10-11-2020 Dated: 23-11-2020  
 Test: Tension Test & Bend Test Test Specification: ASTM-A 615  
 Gauge Length: 200 mm Sample Type: M S 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)				
	kg/m	mm	mm	mm <sup>2</sup>	mm <sup>2</sup>	kN	kN	MPa	MPa	MPa	MPa	mm	mm	%	
1	3.916	25	25.21	491	499	256.00	335.20	521	514	683	672	32.5	200	16.3	
2	3.893	25	25.13	491	496	256.70	336.50	523	518	685	679	35.0	200	17.5	
3	2.215	20	18.95	314	282	164.70	198.00	525	584	631	702	25.0	200	12.5	
4	2.220	20	18.98	314	283	167.00	203.70	532	591	649	721	27.5	200	13.8	
5	1.551	16	15.86	201	198	96.00	137.00	478	486	682	694	37.5	200	18.8	
6	1.564	16	15.93	201	199	96.00	136.50	478	482	679	686	35.0	200	17.5	
7	0.984	12	12.63	113	125	56.70	84.50	502	453	748	675	37.5	200	18.8	
8	0.977	12	12.59	113	124	56.70	84.20	502	456	745	677	40.0	200	20.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

**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)

*Report is checked & verified as per university records*

*S. Asad*

OFFICIAL SEAL

CIVIL ENGINEERING DEPARTMENT  
STRENGTH OF MATERIALS LAB.  
U.E.T. LAHORE

DIRECTOR

*S. Asad*  
26-11-2020

- Note:**
- The above test results pertain to sample(s) provided to this laboratory and should not be reproduced in part.
  - The supplied samples were Sealed / Unsealed / Unsigned / Signed. This laboratory does not accept the responsibility that the supplied samples are truly representative sample(s) of the batch / lot or stock of a particular production.
  - While this laboratory agrees to take every reasonable precaution to ensure validity of its test results, it assumes no liability thereof beyond the amount of the fee charged for the test(s).
  - The client shall assume full responsibility for the ethical use of these test results and laboratory shall be held free from any / all claims, which may result from the use of such data by the client or others.
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  - The interpretation right of this test report lies with the laboratory and the test report is copyright protected.





# TEST REPORT

## STRENGTH OF MATERIALS LABORATORY CIVIL ENGINEERING DEPARTMENT

University of Engineering & Technology, Lahore-54890, Pakistan.

Email: Materials.Lab.ced.Lhr@gmail.com Ph: 0335-1301410

**ORIGINAL**  
A copy of the report has been retained in the Lab for record.

Sr. No: 17358

M. Furqan Noshad PM

Test Performed By:

Dr. /Engr. S. Asad Ali Gillani

CME Engg. (Pvt) Ltd. CMPAK Project Site ID: 52736,52738,51806,52693,52399,52686,52634,52771,52776,52670,52651,52747

Client Reference: CME/Steel/CMPAK/340

SOM Lab Ref: 2969 (Page-1/1)

Dated: 09-09-2020

Dated: 18-09-2020

Test: Tension Test & Bend Test

Test Specification:

ASTM-A 615

Guage Length: 200 mm

Sample Type:

M S 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)				
	kg/m	mm	mm	mm <sup>2</sup>	mm <sup>2</sup>	kN	kN	MPa	MPa	MPa	MPa	mm	mm	%	
1	4.234	25	26.20	491	539	250.70	327.20	511	466	666	608	27.5	200	13.8	
2	4.227	25	26.18	491	538	285.20	353.20	581	530	719	656	32.5	200	16.3	
3	2.226	20	19.00	314	284	138.20	182.20	440	488	580	643	30.0	200	15.0	
4	2.221	20	18.98	314	283	124.70	190.50	397	441	607	674	32.5	200	16.3	
5	1.526	16	15.73	201	194	86.20	128.50	429	444	639	662	25.0	200	12.5	
6	1.539	16	15.80	201	196	86.50	129.00	430	442	642	659	25.0	200	12.5	
7	1.001	12	12.75	113	128	67.00	85.70	593	526	758	672	27.5	200	13.8	
8	0.994	12	12.70	113	127	67.00	86.70	593	530	767	695	27.5	200	18.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

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Report is checked & verified as per university record

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Note: