Test Performed by: .S. Asad Ali Gillani

Jun Heo Project Manager LS Networks / LS Cable & System DHA Karachi-Pakistan. (LESCO`s Project)

 Client Reference No.: LSK-KKT-241001
 Dated: 01-10-2024

 SOM Lab Ref: CED/SOM/4908 (Page 1/1)
 Dated: 02-10-2024

Test Type: Load Test

Sample Type: D-Shakal

Load Test Results

Sr No.	Sample Type	Ultimate Load (kN)	Remarks
1	D-Shakal (Old)	179.50	D-Shakal break at this load
2	D-Shakal (New)	183.7	D-Shakal break at this load

Note: Please alwayss confirm the results on web www.uet-civil.edu.pk

Test Performed by: Dr.S. Asad Ali Gillani

Engr.Zeshan Arif Manager QA/QC

Blue World City Islamabad

 Client Reference No.:Ltr/BWC/BB/QA/QC-04
 Dated: 02-10-2024

 SOM Lab Ref: CED/SOM/4905 (P-1/1)
 Dated: 02-10-2024

Test Type: Flexural Strength & Crushing Strength Test **Standard: ASTM-C-875 - 98**

Sample Type: Asbestos Pipes Vendor: M/S Mahsood Engineering

Flexural Load Results

Sample	Diamet	er (mm)	Thickness	Length of the Tested Sample	Flexural Load
No.	Outer	Inner	(mm)	(unsupported span) (mm)	(kN)
1	174	154.6	9.7	1372	5.84

Crushing Load Results

Sample	Diamet	er (mm)	Thickness	Length of the Tested Sample	Crushing Load		
No.	Outer	Inner	(mm)	(cm)	(kN)		
1	1 174 153.6		10.2	30.0	3.25		

Engr.M.Imran, RE Test Performed By: Dr. /Engr. Nauman Khurram

Master Consulting Engineers.(7-Storey Residential Block Having Min 100 Rooms Facilities at NNS)

Client Reference:NKB/RE/MCE/STEEL/20Dated:01-10-2024SOM Lab Ref:CED/SOM/4907(Page-1/1)Dated:02-10-2024Test:Tension Test & Bend TestTest Specification:ASTM-A 615Sample Type:Deformed BarGauge Length:200 mm

		D	ia.	Ar	ea	Yield	Ultimate	Yield	Stress	Ult. S	Stress			'n	
S.No.	Weight	Nominal	Calculated	Nominal	Calculated	Load	Load	(according to nominal area)	(according to measured area)	(according to nominal area)	(according to measured area)	Elongation	Gauge Length	%age Elongation	Remarks
	kg/m	mm	mm	mm ²	mm²	kN	kN	MPa	MPa	MPa	MPa	mm	mm	%	
1	1.569	16	15.96	201	200	96.50	130.50	480	483	649	653	35.0	200	17.5	
2	1.566	16	15.94	201	199	98.00	129.70	487	492	645	651	35.0	200	17.5	
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BEND TEST:

16mm	Sample bend through 180 degrees Satisfactorily without any crack	Note:-
		Only Three Samples Received and Tested
		Treceived and rested
Note: Plea	l se always confirm the results of above report on web www.uet-civil.edu.pk	

Muhammad Arfan Asif **Test Performed By:** Dr. /Engr. Yousaf ER NESPAK Lhr.(Const Of Green Building for EMC,EPD and Allied` New Entities Estb Under PGDP)

SOM Lab

 Client Reference:
 4731/MAA/03/101
 Ref:
 4906 (P-1/1)

 Dated:
 01-10-2024
 Dated:
 02-10-2024

Test: Tension Test & Bend Test **Test Specification**: ASTM-A-615

Gauge Length: 8 inch Sample Type: Deformed Bar (Markhor Steel)

		D	ia.	А	rea	Yield	Ultimate	Yield	Stress	Ult. S	Stress			_	
S.No.	Weight	Nominal	Calculated	Nominal	Calculated	Load	Load	(according to nominal area)	(according to measured area)	(according to nominal area)	(according to measured area)	Elongation	Gauge Length	%age Elongation	Remarks
	lb/ft	#	in	in ²	in ²	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	0.667	4	0.500	0.20	0.196	5.81	8.28	64080	65380	91280	93140	1.20	8.0	15.0	
2	0.668	4	0.500	0.20	0.196	5.76	8.41	63510	64810	92740	94630	1.10	8.0	13.8	
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Wit	nessed	Ву:		M.Irfa	ın (Nesp	ak)									
BE	ND TE	ST:													
	# 4	Samp	le bend	through	180 de	grees Sa	atisfactorily	without a	ny crack		Note:	_			
						_									
		Only Thre Received													
Not	e: Pleas	se alwa	ys confir	m the r	esults o	f above r	eport on w	eb www.u	et-civil.edu	ı.pk	<u>I</u>				

Engr.M.Imran, RE Test Performed By: Dr. /Engr. Nauman Khurram

Master Consulting Engineers.(7-Storey Residential Block Having Min 100 Rooms Facilities at NNS)

SOM Lab

 Client Reference:
 NKB/RE/MCE/STEEL/20
 Ref:
 4907 (Page-1a/1)

 Dated:
 01-10-2024
 Dated:
 02-10-2024

Test:Tension Test & Bend TestTest Specification:ASTM-A-615Gauge Length:8 inchSample Type:Deformed Bar

		D	ia.	А	rea	Yield	Ultimate	Yield	Stress	Ult. S	tress			_	
S.No.	Weight	Nominal	Calculated	Nominal	Calculated	Load	Load	(according to nominal area)	(according to measured area)	(according to nominal area)	(according to measured area)	Elongation	Gauge Length	%age Elongation	Remarks
	lb/ft	#	in	in ²	in ²	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	1.490	6	0.747	0.44	0.438	14.37	19.13	72050	72380	95910	96340	1.50	8.0	18.8	
2	1.497	6	0.748	0.44	0.440	14.60	19.11	73170	73170	95800	95800	1.50	8.0	18.8	
3	0.672	4	0.501	0.20	0.197	6.63	8.72	73070	74180	96110	97570	1.20	8.0	15.0	
4	0.666	4	0.500	0.20	0.196	6.65	8.74	73290	74790	96340	98300	1.10	8.0	13.8	
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BEND TEST:

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

AL-HADEED CORPORATION

Test Performed By:

Dr. /Engr.

Nauman Khurram

Gulberg III Lahore.(Const Of Shell F.S Yateem Khana Lahore)

SOM Lab

Client Reference: AHC/780/15

Ref:

4909 (Page-1/1)

Dated: 01-10-2024 Dated:

02-10-2024

Test: Tension Test & Bend Test

Test Specification:

ASTM-A-615

Gauge Length:

8 inch

Sample Type:

Deformed Bar (Mughal Steel)

		D	ia.	А	rea	Yield	Ultimate	Yield	Stress	Ult. S	Stress				
S.No.	Weight	Nominal	Calculated	Nominal	Calculated	Load	Load	(according to nominal area)	(according to measured area)	(according to nominal area)	(according to measured area)	Elongation	Gauge Length	%age Elongation	Remarks
	lb/ft	#	in	in ²	in ²	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	1.481	6	0.744	0.44	0.435	14.29	20.10	71640	72460	100760	101920	1.10	8.0	13.8	
2	1.487	6	0.746	0.44	0.437	14.65	20.25	73430	73930	101530	102220	1.10	8.0	13.8	
3	0.671	4	0.501	0.20	0.197	6.70	8.72	73850	74980	96110	97570	1.40	8.0	17.5	
4	0.670	4	0.501	0.20	0.197	6.68	8.72	73630	74750	96110	97570	1.30	8.0	16.3	
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BEND TEST:

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

Qamar Uz Zaman Test Performed By: Dr. /Engr. Asad Ali Gillani

PM Aujla & Associates.(Education Complex Royal Palm City H/Scheme Gujranwala)

SOM Lab

 Client Reference:
 Nil
 Ref:
 4910 (Page-1/3)

 Dated:
 02-10-2024
 Dated:
 02-10-2024

Test:Tension Test & Bend TestTest Specification:ASTM-A-615Gauge Length:8 inchSample Type:Deformed Bar

)ia.	Δ	rea	Yield	Ultimate	Vield	Stress	Ult. S	trees				
S.No.	Weight	Nominal	Calculated	Nominal	Calculated	Load	Load	(according to nominal area)	(according to	(according to nominal area)	(according to	Elongation	Gauge Length	%age Elongation	Remarks
	lb/ft	#	in	in ²	in ²	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	2.601	8	0.986	0.79	0.764	26.76	33.10	74700	77250	92400	95550	1.30	8.0	16.3	
2	2.598	8	0.986	0.79	0.763	27.88	33.97	77830	80590	94820	98180	1.40	8.0	17.5	
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BE	ND TE	ST:													
	# 8	Samp	le bend	througl	n 180 de	grees Sa		Note:	-						
		Only Three Sam Received and Te													

Qamar Uz Zaman Test Performed By: Dr. /Engr. Asad Ali Gillani

PM Aujla & Associates.(Education Complex Royal Palm City H/Scheme Gujranwala)

SOM Lab

 Client Reference:
 Nil
 Ref:
 4910 (Page-2/3)

 Dated:
 02-10-2024
 Dated:
 02-10-2024

Test:Tension Test & Bend TestTest Specification:ASTM-A-615Gauge Length:8 inchSample Type:Deformed Bar

		Б	Dia.	Α	rea	Yield	Ultimate	Yield	Stress	Ult. S	tress			_	
S.No.	Weight	Nominal	Calculated	Nominal	Calculated	Load	Load	(according to nominal area)	(according to measured area)	(according to nominal area)	(according to measured area)	Elongation	Gauge Length	%age Elongation	Remarks
	lb/ft	#	in	in ²	in ²	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	1.561	6	0.764	0.44	0.459	15.65	19.62	78430	75190	98360	94290	1.40	8.0	17.5	
2	1.558	6	0.764	0.44	0.458	16.72	19.95	83800	80500	99990	96060	1.20	8.0	15.0	
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BE	ND TE	ST:													
	# 6	Samp	le bend	througl	n 180 de	grees Sa		Note:	-						
								Only T	hree	Sar	mples	6			
	_							Receiv							

Qamar Uz Zaman Test Performed By: Dr. /Engr. Asad Ali Gillani

PM Aujla & Associates.(Education Complex Royal Palm City H/Scheme Gujranwala)

SOM Lab

 Client Reference:
 Nil
 Ref:
 4910 (Page-3/3)

 Dated:
 02-10-2024
 Dated:
 02-10-2024

Test:Tension Test & Bend TestTest Specification:ASTM-A-615Gauge Length:8 inchSample Type:Deformed Bar

		D	ia.	Α	rea	Yield	Ultimate	Yield	Stress	Ult. S	Stress			_	
S.No.	Weight	Nominal	Calculated	Nominal	Calculated	Load	Load	(according to nominal area)	(according to measured area)	(according to nominal area)	(according to measured area)	Elongation	Gauge Length	%age Elongation	Remarks
	lb/ft	#	in	in ²	in ²	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	0.673	4	0.502	0.20	0.198	7.03	8.58	77560	78350	94650	95610	1.10	8.0	13.8	
2	0.670	4	0.501	0.20	0.197	6.39	8.05	70480	71560	88800	90160	1.40	8.0	17.5	
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BE	ND TE	ST:													
	# 4	Samp	le bend	througl	n 180 de	grees Sa	atisfactorily	without a	ny crack		Note:	-			
									Only 1						
										Recei	ved a	ind ⁻	Γeste	d	

Qaiser Aziz **Test Performed By:** Dr. /Engr. Nauman Khurram SE Team Overc`s Lahore.(Const a High-rise Building"Opera Mall" at Bahria Orchard Ph-4 Lhr)

SOM Lab

 Client Reference:
 Nil
 Ref:
 4911(Page-1/1)

 Dated:
 02-10-2024
 Dated:
 02-10-2024

Test:Tension Test & Bend TestTest Specification:ASTM-A-615Gauge Length:8 inchSample Type:Deformed Bar

	Weight	D	ia.	A	rea	Yield	Ultimate	Yield	Stress	Ult. S	tress			u	
S.No.		Nominal	Calculated	Nominal	Calculated	Load	Load	(according to nominal area)	(according to measured area)	(according to nominal area)	(according to measured area)	Elongation	Gauge Length	%age Elongation	Remarks
	lb/ft	#	in	in ²	in ²	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	1.490	6	0.747	0.44	0.438	13.73	18.45	68830	69140	92480	92910	1.20	8.0	15.0	
2	1.487	6	0.746	0.44	0.437	13.78	18.32	69080	69560	91820	92450	1.30	8.0	16.3	
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BEND TEST:

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

Waseem Akram Test Performed By: Dr. /Engr. Nauman Khurram

Salman Developers (Grand Square Mall).Lahore.(Mian Numan Sb House Land Breeze)

SOM Lab

 Client Reference:
 Nil
 Ref:
 4912 (Page-1/1)

 Dated:
 02-10-2024
 Dated:
 02-10-2024

Test:Tension Test & Bend TestTest Specification:ASTM-A-615Gauge Length:8 inchSample Type:Deformed Bar

		Б)ia.	Α	rea	Yield	Ultimate	Yield	Stress	Ult. S	tress			_	
S.No.	Weight	Nominal	Calculated	Nominal	Calculated	Load	Load	(according to nominal area)	(according to measured area)	(according to nominal area)	(according to measured area)	Elongation	Gauge Length	%age Elongation	Remarks
	lb/ft	#	in	in ²	in ²	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	1.519	6	0.754	0.44	0.446	15.77	19.93	79050	77980	99890	98550	1.30	8.0	16.3	
2	1.522	6	0.754	0.44	0.447	15.82	19.88	79300	78060	99640	98080	1.10	8.0	13.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
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BE	ND TE	ST:													
	# 6	Samp	le bend	througl	n 180 de	grees Sa	atisfactorily	without a	ny crack		Note:	-			
											Only T	hree	Sar	mples	6
										Receiv					

Waseem Akram Test Performed By: Dr. /Engr. Nauman Khurram

Salman Developers (Grand Square Mall).Lahore.(Mian Numan Sb House Land Breeze)

SOM Lab

 Client Reference:
 Nil
 Ref:
 4913 (Page-1/1)

 Dated:
 02-10-2024
 Dated:
 02-10-2024

Test:Tension Test & Bend TestTest Specification:ASTM-A-615Gauge Length:8 inchSample Type:Deformed Bar

)ia.	^	roo	Yield	Ultimate	Viold	Stress	1114 C	troop				
S.No.	Weight	Nominal	Calculated	Nominal	Calculated	Load	Load	(according to nominal area)	(according to see measured area)	(according to nominal area)	(according to measured area)	Elongation	Gauge Length	%age Elongation	Remarks
	lb/ft	#	in	in ²	in ²	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	0.663	4	0.498	0.20	0.195	6.39	8.33	70480	72290	91840	94190	1.20	8.0	15.0	
2	0.664	4	0.498	0.20	0.195	6.37	8.31	70260	72060	91610	93960	1.20	8.0	15.0	
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BE	ND TE	ST:													
# 4 Sample bend through 180 de						grees Sa	atisfactorily	without a	ny crack		Note:-				
											Only Three Samples Received and Tested				

Sub Divisional officer, Test Performed By: Dr. /Engr. Nauman Khurram

The Punjab Employees Spcial Security Institution Lahore.(Strengthening of Column Structure)

SOM Lab

Client Reference: SS.DC(178)/388 4914 (Page-1/1) Ref: Dated: 02-10-2024 Dated: 02-10-2024

Test: Tension Test & Bend Test **Test Specification: ASTM-A-615** Gauge Length: 8 inch Sample Type: **Deformed Bar**

		D)ia.	А	rea	Yield	Ultimate	Yield	Stress	Ult. S	tress			_	
S.No.	Weight	Nominal	Calculated	Nominal	Calculated	Load	Load	(according to nominal area)	(according to measured area)	(according to nominal area)	(according to measured area)	Elongation	Gauge Length	%age Elongation	Remarks
	lb/ft	#	in	in ²	in ²	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	1.478	6	0.743	0.44	0.434	14.07	18.55	70510	71490	92990	94280	1.20	8.0	15.0	
2	1.478	6	0.743	0.44	0.434	14.19	18.73	71130	72110	93860	95160	1.40	8.0	17.5	
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BEND TEST:															
	# 6	Samp	le bend	througl	180 de	grees Sa	atisfactorily	without a	ny crack		Note:	-			
									Only T			•			

Received and Tested