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

Ittefaq Building Solutions (Pvt) Ltd. Lahore (Kohinoor Textile Mill Raiwind, Lahore)

Client Reference: IBS/KTML/ST 02 Dated: 24-02-2022

SOM Lab Ref: CED/SOM/5936(Page-1/1) **Dated:** 24-02-2022

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

Sample Type: Deformed Bar Gauge Length: 200 mm

		D	ia.	Ar	ea	Yield	Ultimate	Yield	Stress	Ult. S	Stress			u	
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	mm ²	kN	kN	MPa	MPa	MPa	MPa	mm	mm	%	
1	3.918	25	25.21	491	499	250.50	330.20	510	503	673	662	32.5	200	16.3	
2	3.919	25	25.21	491	499	363.00	409.20	739	728	834	820	25.0	200	12.5	
3	1.560	16	15.91	201	199	127.20	151.50	633	641	753	763	27.5	200	13.8	
4	1.559	16	15.90	201	199	130.70	150.50	650	659	749	758	25.0	200	12.5	
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BEND TEST:

Only Six Samples
Received and Tested

Ashraf Ali **Test Performed By:** Dr. /Engr. Asad Ali Gillani RE (AZEA) Sargodha.(Const. Of Carpet Rd From Chak 36 Pull To Adda Riazabad) **SOM Lab** 5934 (Page-Client Reference: RE/AZEA/SGD/59 Ref: 1/1) Dated: 24-02-2022 Dated: 17-02-2022 Test: Tension Test & Bend Test **Test Specification:** ASTM-A-615 Sample Type: Gauge Length: 8 inch **Deformed Bar** Dia. Area Yield Ultimate Yield Stress Ult. Stress %age Elongation Load Load Gauge Length (according to nominal area) (according to nominal area) (according to measured area) (according to measured area) Elongation Remarks Weight Salculated Calculated S.No. Nominal Nominal in^2 in^2 Tons lb/ft # in psi psi Tons psi psi in in 87120 1 0.676 4 0.503 0.20 0.199 5.42 7.90 59800 60100 87560 1.50 8.0 18.8 -**BEND TEST:** Note:-#4 Sample bend through 180 degrees Satisfactorily without any crack Only Two Samples

Received and Tested

PM Aujla & Associates.(Royal Palm City Housing Scheme Gujranwala)

Nil

23-02-2022

SOM Lab 5935 (Page-

Ref: 1/6)

Dated: 24-02-2022

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

		D	ia.	A	rea	Yield	Ultimate	Yield	Stress	Ult. S	tress			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
	lb/ft	#	in	in ²	in ²	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	2.622	8	0.991	0.79	0.771	26.91	33.66	75130	76980	93970	96290	1.00	8.0	12.5	
2	2.604	8	0.987	0.79	0.765	26.86	34.63	74990	77440	96670	99830	1.20	8.0	15.0	
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BEND TEST:

Client Reference:

Dated:

# 8	Sample bend through 180 degrees Satisfactorily without any crack	Note:-
		Only Three Samples
		Received and Tested

PM Aujla & Associates.(Royal Palm City Housing Scheme Gujranwala)

Nil

SOM Lab 5935 (Page-

Ref: 2/6)

Dated: 23-02-2022 **Dated:** 24-02-2022

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

		D	ia.	A	rea	Yield	Ultimate	Yield	d Stress Ult. Stress		tress			'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
	lb/ft	#	in	in ²	in ²	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	1.502	6	0.749	0.44	0.441	11.26	16.56	56460	56330	83030	82840	1.30	8.0	16.3	
2	1.506	6	0.751	0.44	0.443	11.16	16.53	55950	55570	82880	82320	1.20	8.0	15.0	
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BEND TEST:

Client Reference:

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

PM Aujla & Associates.(Royal Palm City Housing Scheme Gujranwala)

Nil

SOM Lab 5935 (Page-

Ref: 3/6)

Dated: 23-02-2022 **Dated:** 24-02-2022

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

		D	ia.	A	rea	Yield	Ultimate	Yield	Stress	Ult. S	tress			'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
	lb/ft	#	in	in ²	in ²	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	0.622	4	0.483	0.20	0.183	6.32	9.35	69700	76170	103080	112660	1.10	8.0	13.8	
2	0.628	4	0.485	0.20	0.185	6.22	9.30	68570	74130	102520	110830	1.20	8.0	15.0	
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BEND TEST:

Client Reference:

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

PM Aujla & Associates.(Royal Palm City Housing Scheme Gujranwala)

Nil

SOM Lab 5935 (Page-

Ref: 4/6)

Dated: 23-02-2022 **Dated:** 24-02-2022

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	stress			П	
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	2.659	8	0.997	0.79	0.781	27.42	33.86	76550	77440	94540	95630	1.40	8.0	17.5	
2	2.658	8	0.997	0.79	0.781	25.69	32.28	71720	72540	90130	91170	1.50	8.0	18.8	
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BEND TEST:

Client Reference:

# 8	Sample bend through 180 degrees Satisfactorily without any crack	Note:-
		Only Three Samples
		Received and Tested

PM Aujla & Associates.(Royal Palm City Housing Scheme Gujranwala)

Nil

SOM Lab 5935 (Page-

Ref: 5/6)

Dated: 23-02-2022 **Dated:** 24-02-2022

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	1.456	6	0.738	0.44	0.428	14.39	18.20	72150	74170	91210	93760	1.00	8.0	12.5	
2	1.455	6	0.738	0.44	0.428	13.91	17.91	69750	71700	89780	92290	1.00	8.0	12.5	
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BEND TEST:

Client Reference:

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

PM Aujla & Associates.(Royal Palm City Housing Scheme Gujranwala)

Nil

SOM Lab 5935 (Page-

Ref: 6/6)

Dated: 23-02-2022 **Dated:** 24-02-2022

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

		D	ia.	A	rea	Yield	Ultimate	Yield	Stress	Ult. S	tress			'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
	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	5.83	8.97	64300	65610	98920	100940	0.80	8.0	10.0	
2	0.665	4	0.498	0.20	0.195	5.96	9.23	65760	67450	101730	104340	1.20	8.0	15.0	
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BEND TEST:

Client Reference:

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

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

Construction Company Engrs & Contractors, Sheikhupura.

Nil

SOM Lab 5937 (Page-

Ref: 1/1)

Dated: 24-02-2022 **Dated:** 24-02-2022

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

		D	ia.	A	rea	Yield	Ultimate	Yield	Stress	Ult. S	tress			Ē	
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	2.637	8	0.993	0.79	0.775	24.18	34.20	67500	68810	95480	97330	1.70	8.0	21.3	
2	1.465	6	0.741	0.44	0.431	13.51	19.27	67700	69120	96570	98590	1.10	8.0	13.8	
3	0.683	4	0.506	0.20	0.201	6.42	8.61	70820	70470	94990	94510	1.40	8.0	17.5	
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BEND TEST:

Client Reference:

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

Z.H Kazmi Test Performed By: Dr. /Engr. Asad Ali Gillani

Pricipal Architect Z.H Kazmi & Associates, (Const Of New Godown/Shed & Pavements) At ABL Multan)

SOM Lab 5938 (Page-

Client Reference: Nil Ref: 1/1)

Dated: 24-02-2022 **Dated:** 24-02-2022

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			Ē	
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	2.615	8	0.989	0.79	0.768	27.93	33.86	77980	80210	94540	97250	1.60	8.0	20.0	
2	1.495	6	0.748	0.44	0.439	14.88	19.80	74600	74770	99230	99450	1.30	8.0	16.3	
3	0.590	4	0.469	0.20	0.173	6.73	7.75	74190	85770	85430	98770	1.00	8.0	12.5	
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BEND TEST:

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

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

Asst Dir DHA Gujranwala.(Manhole frame/Cover-Pkg 2A)

SOM Lab 5939 (Page-

<u>111/15/AD/RS/Pkg-2A/92</u> **Ref**: 1/1)

Dated: 08-02-2022 **Dated:** 24-02-2022

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

		D	ia.	A	rea	Yield	Ultimate	Yield	Stress	Ult. S	tress			Ē	
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	0.677	4	0.503	0.20	0.199	6.68	9.07	73630	74000	100050	100550	1.30	8.0	16.3	
2	0.679	4	0.505	0.20	0.200	6.70	9.09	73850	73850	100270	100270	1.10	8.0	13.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
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BEND TEST:

Client Reference:

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

Engr. Abdul Qadeer Khan Test Performed By: Dr. /Engr. Asad Ali Gillani

LandMark Consultants, Lahore. (parkview Apartments)

SOM Lab 5940 (Page-

<u>CIV/172/24022022</u> **Ref**: 1/1)

Dated: 24-02-2022 **Dated:** 24-02-2022

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	tress			Ē	
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	1.500	6	0.749	0.44	0.441	15.75	19.03	78940	78760	95400	95180	1.40	8.0	17.5	
2	0.670	4	0.501	0.20	0.197	7.21	8.21	79470	80690	90490	91870	1.20	8.0	15.0	
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BEND TEST:

Client Reference:

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

Major M Umair Muddassir Test Performed By: Dr. /Engr. Asad Ali Gillani

11 Engnieer Battalion Skp Camp C/O Single Centre (FWO) Chaklala)(KSK Interchange Ext.)

SOM Lab 5941 (Page-

607/General/1/Project Ref: 1/1)

Dated: Feb 2022 **Dated:** 24-02-2022

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			П	
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	0.584	4	0.468	0.20	0.172	6.42	7.72	70820	82350	85100	98950	1.10	8.0	13.8	
2	0.590	4	0.469	0.20	0.173	6.39	7.70	70480	81480	84870	98120	1.00	8.0	12.5	
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	1 1														

BEND TEST:

Client Reference:

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

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

C.E.O Design Consortium Lahore.

24-02-2022

Nil

Client Reference:

Dated:

SOM Lab 5942 (Page-

Ref: 1/1)

Dated: 24-02-2022

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			L	
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	0.680	4	0.505	0.20	0.200	7.36	8.94	81160	81160	98580	98580	1.00	8.0	12.5	
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BEND TEST:

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

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

RE Osmani & Company Fsd.(Const. Of UG,CH Tank,Water Supply And Sewerage Sys At M-3 Fsd)

SOM Lab 5943 (Page-

Client Reference: CRE/M3IC/FIC-040/Lab/1670 Ref: 1/1)

Dated: 15-02-2022 **Dated:** 24-02-2022

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

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

		Dia.		Dia. Area		Yield	Ultimate	Yield Stress		Ult. Stress				Ē	
S.No.	Weight	Nominal	Calculated	Nominal	Calculated	Load	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	1.607	6	0.775	0.44	0.472	18.60	21.92	93250	86930	109850	102410	1.00	8.0	12.5	
2	1.494	6	0.748	0.44	0.439	15.80	19.59	79200	79380	98210	98430	1.30	8.0	16.3	
3	1.029	5	0.620	0.31	0.302	10.88	13.35	77380	79430	95000	97520	1.10	8.0	13.8	
4	1.023	5	0.619	0.31	0.301	9.86	12.76	70130	72230	90800	93510	1.00	8.0	12.5	
5	0.672	4	0.501	0.20	0.197	6.37	9.02	70260	71330	99480	101000	1.20	8.0	15.0	
6	0.668	4	0.500	0.20	0.196	6.27	9.04	69130	70540	99710	101740	1.00	8.0	12.5	
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BEND TEST:

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

Sub Divisional officer, Test Performed By: Dr. /Engr. Asad Ali Gillani

BSD Nankana Sb.(3 Nos Additional Class Rooms At Govt. Boys Primary School Sheikh Da Kot)

SOM Lab 5944 (Page-

<u>794/SDO/BSD/NNS</u> **Ref**: 1/1)

Dated: 20-02-2022 **Dated:** 24-02-2022

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

		D	Dia. Area		Yield	Ultimate	Yield Stress		Ult. 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	0.677	4	0.503	0.20	0.199	5.84	9.07	64410	64740	100050	100550	1.20	8.0	15.0	
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BEND TEST:

Client Reference:

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