Arfan Nazir Test Performed By: Dr. /Engr. Irfan Ul Hassan

Manager Civil, Nishat Mills Ltd. Lahore. Nishat Grouop (Dyeing & Finishing Plant Lahore)

4744(Page-

 Client Reference:
 NDF/ST/001
 SOM Lab Ref:
 1/1)

 Dated:
 28-08-2024
 Dated:
 05-09-2024

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

Guage Length: 200 mm Sample Type: MS Def Bar (Premier Steel)

		D	ia.	Ar	ea	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
	kg/m	mm	mm	mm ²	mm ²	kN	kN	MPa	MPa	MPa	MPa	mm	mm	%	
1	3.840	25	24.95	491	489	261.00	335.20	532	534	683	686	37.5	200	18.8	
2	3.824	25	24.90	491	487	259.00	333.00	527	532	678	684	32.5	200	16.3	
3	2.415	20	19.79	314	308	162.00	207.00	516	527	659	673	37.5	200	18.8	
4	2.415	20	19.79	314	308	161.00	207.00	513	524	659	673	35.0	200	17.5	
5	1.580	16	16.01	201	201	103.00	130.50	512	512	649	649	27.5	200	13.8	
6	1.593	16	16.08	201	203	105.00	134.70	522	518	670	664	25.0	200	12.5	
7	0.895	12	12.05	113	114	56.00	72.70	496	492	643	638	22.5	200	11.3	
8	0.881	12	11.96	113	112	60.20	76.20	533	537	674	679	25.0	200	12.5	
-	-	-	-	-	-	-	-	-	-	-	1	-	-	ı	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	_

BEND TEST:

25mm	Sample bend through 180 degrees Satisfactorily without any crack	Note:-
20mm	Sample bend through 180 degrees Satisfactorily without any crack	
16mm	Sample bend through 180 degrees Satisfactorily without any crack	Only Twelve Samples
12mm	Sample bend through 180 degrees Satisfactorily without any crack	Received and Tested

Lt. Col ® Muhammad Ibrahim **Test Performed By:** Dr. /Engr. Irfan Ul Hassan Snr Estate Engr Sundar Industrial Estate Lahore.(Dev Of Tube Well No 7 and Rehb of OHR-1)

4746(Page-

 Client Reference:
 BOM/SIE/BCD 9-24/601
 SOM Lab Ref:
 1/1)

 Dated:
 04-09-2024
 Dated:
 05-09-2024

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

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

Guage Length: 200 mm Sample Type: MS Def Bar (Ittefaq Steel)

		D	ia.	Δr	ea	Yield	Ultimate	Yield	Stress	LIIt S	Stress			_	
S.No.	Weight	Nominal	Calculated	Nominal	Calculated	Load	Load	(according to nominal area)	(according to seas) (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	0.982	12	12.62	113	125	66.00	84.70	584	528	750	678	30.0	200	15.0	
2	1.008	12	12.79	113	128	63.00	84.70	558	491	750	660	20.0	200	10.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	1	-	-	-	-	-	-	1	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
BE	ND TE	ST:													
		No Be	end test	perforr	ned						Note:	-			
											Only 1				
											Recei	ved a	ind T	este	b

Test Performed By:

SOM Lab

Dr. /Engr.

Nauman Khurram

 Client Reference:
 Nil
 Ref:
 4743 (Page-1/10)

 Dated:
 04-09-2024
 Dated:
 05-09-2024

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	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	2.781	8	1.020	0.79	0.817	23.16	36.19	64660	62520	101030	97690	1.30	8.0	16.3	H-O
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	ı	
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-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<u>BE</u>	ND TE	ST:													
	# 8	Samp	le bend	through	n 180 de	grees Sa		Note:	-						
								Only 1 Recei				ed			

SOM Lab

Test Performed By:

4743 (Page-2/10) Ref:

Dr. /Engr.

Dated: 04-09-2024

Client Reference:

Gauge Length:

Dated:

05-09-2024

Nauman Khurram

Test: Tension Test & Bend Test

8 inch

Nil

Test Specification: Sample Type:

ASTM-A-615 Deformed Bar

															1
		D	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	2.667	8	0.999	0.79	0.784	21.38	33.59	59680	60140	93770	94490	1.30	8.0	16.3	H#1
-	-	-	-	-	1	-	-	-	-	-	-	-	ı	ı	
-	-	-	-	-	ı	ı	ı	ı	ı	ı	ı	-	1	ı	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
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-	-	-	-	-	1	-	-	-	1	-	-	-	ı	ı	
			•		•							•		•	

BEND TEST:

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

SOM Lab

Dr. /Engr.

Nauman Khurram

Test Performed By:

 Client Reference:
 Nil
 Ref:
 4743 (Page-3/10)

 Dated:
 04-09-2024
 Dated:
 05-09-2024

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	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	2.687	8	1.003	0.79	0.790	21.89	35.07	61100	61100	97900	97900	1.20	8.0	15.0	H#2
-	-	-	-	-	-	-	ı	ı	ı	ı	ı	-	•	ı	
-	-	-	-	-	-	-	ı	ı	ı	ı	ı	-	•	ı	
-	-	-	-	-	-	-	ı	ı	ı	ı	ı	-	•	ı	
-	-	-	-	-	-	ı	ı	ı	ı	ı	ı	-	-	ı	
-	-	-	-	-	-	ı	ı	ı	ı	ı	ı	-	-	ı	
-	-	-	-	-	-	ı	ı	ı	ı	ı	ı	-	-	ı	
-	-	-	-	-	-	ı	ı	ı	ı	ı	ı	-	-	ı	
-	-	-	-	-	-	-	ı	-	ı	ı	1	-	•	1	
-	-	-	-	-	-	-	-	ı	ı		ı	-	-	ı	
BE	ND TE	ST:													
	# 8	Samp	le bend	Note:	-										
								Only 7 Recei				d			

SOM Lab

Dr. /Engr.

Nauman Khurram

Test Performed By:

 Client Reference:
 Nil
 Ref:
 4743 (Page-4/10)

 Dated:
 04-09-2024
 Dated:
 05-09-2024

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	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	2.646	8	0.995	0.79	0.778	21.07	34.73	58830	59730	96960	98450	1.40	8.0	17.5	H#3
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
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-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<u>BE</u>	ND TE	ST:													
	# 8	Samp	le bend	througl	n 180 de	grees Sa		Note:	-						
								Only 7				d			

SOM Lab

Dr. /Engr.

Nauman Khurram

Test Performed By:

 Client Reference:
 Nil
 Ref:
 4743 (Page-5/10)

 Dated:
 04-09-2024
 Dated:
 05-09-2024

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

)ia.	A	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	2.650	8	0.996	0.79	0.779	21.53	34.98	60110	60950	97670	99050	1.10	8.0	13.8	H#4
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
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-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<u>BE</u>	ND TE	ST:													
	# 8	Samp	le bend	through	n 180 de	grees Sa		Note:	-						
								Only 1							
								Recei	ved a	ind ⁻	Γeste	d			

Dr. /Engr.

Nauman Khurram

Test Performed By:

 Client Reference:
 Nil
 Ref:
 4743 (Page-6/10)

 Dated:
 04-09-2024
 Dated:
 05-09-2024

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	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	6.17	9.70	68010	68700	107010	108090	1.10	8.0	13.8	H#1
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	1	-	-	-	-	-	-	1	-	-	-	ı	-	
-	ı	ı	-	-	-	ı	-	ı	ı	-	-	-	ı	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	
BE	ND TE	ST:													
	# 4	Samp	le bend	through	n 180 de	grees Sa		Note:	-						
											Only T	wo S	Samı	ples	
											Receiv				d

SOM Lab

Dr. /Engr.

Nauman Khurram

Test Performed By:

 Client Reference:
 Nil
 Ref:
 4743 (Page-7/10)

 Dated:
 04-09-2024
 Dated:
 05-09-2024

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	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	0.650	4	0.493	0.20	0.191	5.32	8.02	58680	61440	88470	92640	1.30	8.0	16.3	H#2
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	ı	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<u>BE</u>	ND TE	ST:													
	# 4	Samp	le bend	through	180 de	grees Sa		Note:	_						
											Only 1				
											Recei	ved a	ind 7	Γeste	d

SOM Lab

Dr. /Engr.

Nauman Khurram

Test Performed By:

 Client Reference:
 Nil
 Ref:
 4743 (Page-8/10)

 Dated:
 04-09-2024
 Dated:
 05-09-2024

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	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	0.666	4	0.500	0.20	0.196	5.71	8.69	62950	64240	95770	97730	1.30	8.0	16.3	H#3
-	-	-	-	-	-	ı	ı	ı	-	ı	ı	-	•	1	
-	-	-	-	-	-	ı	ı	ı	-	ı	ı	-	•	1	
-	-	-	-	-	-	ı	ı	ı	-	ı	ı	-	•	1	
-	-	-	-	-	-	ı	ı	ı	-	ı	ı	-	-	ı	
-	-	-	-	-	-	ı	ı	ı	-	ı	ı	-	-	ı	
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-	-	-	-	-	-	-	ı	-	-	ı	1	-	•	1	
-	-	-	-	-	-	ı	-	ı	-		ı	-	-	ı	
BE	ND TE	ST:													
	# 4	Samp	le bend	througl	180 de	grees Sa	atisfactorily	without a	ny crack		Note:	-			
											Only 7 Recei				d

SOM Lab

Dr. /Engr.

Nauman Khurram

Test Performed By:

 Client Reference:
 Nil
 Ref:
 4743 (Page-9/10)

 Dated:
 04-09-2024
 Dated:
 05-09-2024

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

		С)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	0.657	4	0.496	0.20	0.193	5.71	8.61	62950	65230	94990	98430	1.30	8.0	16.3	H#4
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	ı	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
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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	Two S	Sam	ples	
											Recei	ved a	ind 7	Γeste	d

Test Performed By:

SOM Lab

Dr. /Engr.

Nauman Khurram

Client Reference: Nil Ref: 4743 (Page-10/10)

Dated: 04-09-2024 **Dated:** 05-09-2024

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	Stress			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	0.658	4	0.496	0.20	0.193	5.66	8.61	62390	64650	94990	98430	1.30	8.0	16.3	H # 5
-	-	ı	-	-	-	1	-	-	-	-	-	-	-	-	
	1	1	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
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-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<u>BE</u>	ND TE	ST:													
	# 4	Samp	le bend	througl	า 180 de	grees Sa	ny crack		Note:	-					
								Only 1							
											Recei	ved a	ind ⁻	Γeste	d

M. Omer **Test Performed By:** Dr. /Engr. Irfan Ul Hassan Director Design Spot. (KFC Mughal Pura Lahore) **SOM Lab Client Reference:** 4745 (Page-1/1) Nil Ref: Dated: 05-09-2024 Dated: 05-09-2024 Test: Tension Test & Bend Test **Test Specification: ASTM-A-615 Gauge Length:** 8 inch Sample Type: Deformed Bar (Mughal Steel) Area Dia. Yield Ultimate Yield Stress Ult. Stress %age Elongation Load Load Gauge Length (according to measured area) (according to nominal area) (according to nominal area) (according to measured area) Elongation Remarks Weight Calculated Calculated S.No. Nominal Nominal lb/ft # in^2 in^2 % in Tons Tons psi in in psi psi psi 0.655 0.494 0.20 0.192 5.93 7.85 65420 68150 86560 90160 1.00 8.0 12.5 1 4 _ _ _ -_ ---_ _ _ -_

BEND TEST:

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

Muhammad Hassan Khan,RE **Test Performed By:** Dr. /Engr. Asad Ali Gillani NESPAK Lahore.(Construction of Carpet/PCC/Tuff Tile and Drainage Facilities UC No.193,194 Lhr)

SOM Lab

 Client Reference:
 3772/103/MHK/ADP/Bungali,Lidhar-AG/15
 Ref:
 4747 (Page-1/1)

 Dated:
 30-08-2024
 Dated:
 05-09-2024

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

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

		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	0.672	4	0.501	0.20	0.197	6.32	8.79	69700	70760	96900	98370	1.40	8.0	17.5	
2	0.669	4	0.501	0.20	0.197	6.49	8.87	71610	72700	97800	99290	1.40	8.0	17.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
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BE	ND TE	ST:													
	# 4	Samp	le bend	through	180 de	grees Sa	atisfactorily	without a	ny crack		Note:	-			
		Only Three Samples Received and Tested													

Muhammad Hassan Khan,RE **Test Performed By:** Dr. /Engr. Asad Ali Gillani NESPAK Lahore.(Re-Const of Rd From GBHS Kamahan To Muhammad Ali Chowk Lahore)

SOM Lab

 Client Reference:
 3772/103/MHK/ADP/GC,Minhala Kalan/15
 Ref:
 4748(Page-1/1)

 Dated:
 30-08-2024
 Dated:
 05-09-2024

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

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

		D	ia.	А	rea	Yield	Ultimate	Yield	Stress	Ult. S	tress			ū	
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	0.670	4	0.501	0.20	0.197	6.39	8.74	70480	71560	96340	97800	1.60	8.0	20.0	
2	0.669	4	0.501	0.20	0.197	7.21	9.12	79470	80690	100610	102140	1.40	8.0	17.5	
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-		-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
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1	ī	1	-	-	-	-	-	-	-	-	-	-	-	1	
BE	ND TE	ST:													
	# 4	Samp	le bend	through	า 180 de	grees Sa	atisfactorily	without a	ny crack		Note:	-			
											Only T	hree	Sar	mples	6
											Receiv	ved a	ind ⁻	Γeste	d

Muhammad Hassan Khan,RE **Test Performed By:** Dr. /Engr. Asad Ali Gillani NESPAK Lahore.(Const of Carpet/PCC/Tuff Tile and Drainage Facilities in UC No.195,189,182 Lhr)

SOM Lab

 Client Reference:
 3772/103/MHK/ADP/Hair,Burki,Dograay/15
 Ref:
 4749(Page-1/1)

 Dated:
 30-08-2024
 Dated:
 05-09-2024

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

		D	ia.	А	rea	Yield	Ultimate	Yield	Stress	Ult. S	tress			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
	lb/ft	#	in	in ²	in ²	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	0.670	4	0.501	0.20	0.197	6.09	8.36	67110	68130	92180	93580	1.40	8.0	17.5	
2	0.669	4	0.501	0.20	0.197	6.19	8.46	68230	69270	93300	94720	1.30	8.0	16.3	
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-	ı	ı	-	-	-	-	1	ı	ı	-	-	-	-	ı	
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-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
BE	ND TE	ST:													
	# 4	Samp	le bend	through	180 de	grees Sa	atisfactorily	without a	ny crack		Note:	-			
											Only 1	Γhree	Sar	nples	3
											Recei				
Note	e: Pleas	e alwa	ys confir	m the r	esults of	above r	eport on we	eb www.u	et-civil.edu	ı.pk	•				

Muhammad Hassan Khan,RE **Test Performed By:** Dr. /Engr. Asad Ali Gillani NESPAK Lahore.(Const of Carpet/PCC/Tuff Tile and Drainage Facilities in UC No.183,Julo,Lahore)

SOM Lab

 Client Reference:
 3772/103/MHK/ADP/Julo/13
 Ref:
 4750(Page-1/1)

 Dated:
 30-08-2024
 Dated:
 05-09-2024

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

		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	0.670	4	0.501	0.20	0.197	7.51	9.65	82850	84110	106450	108070	1.40	8.0	17.5	
2	0.670	4	0.501	0.20	0.197	5.78	8.23	63740	64710	90720	92100	1.40	8.0	17.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
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-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
BE	ND TE	ST:													
	# 4	Samp	le bend	through	n 180 de	grees Sa	atisfactorily	without a	ny crack		Note:	•			
		Sample bend through 180 degrees Satisfactorily without any crack Only Three Samples Received and Tested													
Not	e: Pleas	se alwa	ys confir	m the r	results of	f above r	eport on w	eb www.u	et-civil.edu	ı.pk					

Dr. Adil Khan, RE **Test Performed By:** Dr. /Engr. Wasim Abbas Nespak.(Dev Of Internal Infrastructure Of CBD Walton&Flyover Connecting Bab-e-Pakistan To Walton)

SOM Lab

Dated: 09-05-2024 **Dated:** 05-09-2024

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	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	0.669	4	0.501	0.20	0.197	5.52	8.38	60930	61860	92400	93810	1.00	8.0	12.5	
2	0.663	4	0.498	0.20	0.195	5.56	8.31	61270	62840	91610	93960	1.00	8.0	12.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
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-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	
BE	ND TE	ST:													
	# 4	Samp	le bend	through	n 180 de	grees Sa	ntisfactorily	without a	ny crack		Note:	-			

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

Dr.Adil Khan, RE Test Performed By: Dr. /Engr. Wasim Abbas Nespak.(Dev Of Internal Infrastructure Of CBD Walton&Flyover Connecting Bab-e-Pakistan To Walton)

SOM Lab

Client Reference: 4751 (Page-2/3) 4322/13/DAK/02/238 Ref: 05-09-2024 Dated:

09-05-2024 Dated:

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

			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	1.027	5	0.620	0.31	0.302	10.32	14.17	73390	75340	100810	103480	0.80	8.0	10.0	
2	1.030	5	0.621	0.31	0.303	10.40	14.42	73970	75680	102620	104990	0.80	8.0	10.0	
-	-	-	-	-	-	-	-	-	-	_	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
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<u>BE</u>	ND TE	ST:													
	# 5	Samp	le bend	through	n 180 de	grees Sa	atisfactorily	without ar	ny crack		Note:	•			
											Only T				
											Receiv	ved a	nd ⁻	Γeste	d

Dr.Adil Khan, RE **Test Performed By:** Dr. /Engr. Wasim Abbas Nespak.(Dev Of Internal Infrastructure Of CBD Walton&Flyover Connecting Bab-e-Pakistan To Walton)

SOM Lab

Client Reference: 4751 (Page-3/3) 4322/13/DAK/02/237 Ref: 05-09-2024 Dated:

09-05-2024 Dated:

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

)ia.	Α	rea	Yield	Ultimate	Yield	Stress	Ult. S	Stress			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	1.491	6	0.747	0.44	0.438	16.28	20.51	81600	81970	102800	103270	1.00	8.0	12.5	
2	1.473	6	0.743	0.44	0.433	14.63	19.13	73320	74510	95910	97460	0.80	8.0	10.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
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BE	ND TE	ST:													
	# 6	Samp	le bend	through	180 de	grees Sa	-	Note:	-						
											Only T Receiv			-	