Engr. Shoukat Ali Rana Test Performed By: Dr. /Engr. Khurram

**Project Manager, Orbit Housing, Lahore** 

**SOM Lab** 

 Client Reference:
 Nil
 Ref:
 1251(Page-1/1)

 Dated:
 07-08-2019
 Dated:
 09-08-2019

**Deformed** 

Gauge Length: 8 inch Sample Type: Bar

		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 <sup>2</sup>	in <sup>2</sup>	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	0.586	4	0.468	0.20	0.172	6.57	7.90	72510	84310	87120	101300	1.00	8.0	12.5	
2	0.611	4	0.479	0.20	0.180	6.37	7.54	70260	78060	83180	92430	0.90	8.0	11.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	1		-	•	1	-	-	-	-	-	
-	-	-	-	-	1		-	•	1	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
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		_													

## **BEND TEST:**

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

<u>Nauman</u>

Furqan Ali Malik Test Performed By: Dr. /Engr. Khurram

Chief Resident Engineer, Package -I, NESPAK, (Pvt) Ltd. Lahore

**SOM Lab** 

Client Reference: <u>4042/13/FAM/Steel-084</u> Ref: 1255(Page-1/1)
Dated: 03-08-2019 Dated: 07-08-2019

**Deformed Bar (City** 

Gauge Length: 8 inch Sample Type: Steel)

		D	ia.	Α	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 <sup>2</sup>	in <sup>2</sup>	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	0.671	4	0.501	0.20	0.197	6.09	9.30	67110	68130	102520	104080	1.10	8.0	13.8	
2	0.671	4	0.501	0.20	0.197	6.09	9.28	67110	68130	102290	103850	1.20	8.0	15.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	•	•	
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# **BEND TEST:**

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

<u>Nauman</u> Khurram

Furqan Ali Malik Test Performed By: Dr. /Engr.

Chief Resident Engineer, Package -I, NESPAK, (Pvt) Ltd. Lahore

**SOM Lab** 

Client Reference: <u>4042/13/FAM/Steel-085</u> Ref: 1255(Page-2/2)
Dated: 03-08-2019 Dated: 07-08-2019

Dated: 03-08-2019 Dated:

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

**Deformed Bar (City** 

Gauge Length: 8 inch Sample Type: Steel)

		D	ia.	Α	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 <sup>2</sup>	in <sup>2</sup>	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	0.967	5	0.601	0.31	0.284	8.51	12.23	60560	66100	87030	94990	1.70	8.0	21.3	
2	0.968	5	0.601	0.31	0.284	8.48	12.25	60340	65860	87170	95150	1.40	8.0	17.5	
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-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-		
-	-	-	-	-	-	-	-	-	-	-	-	-	-		
-	-	-	-	-	1		-	-	1	-	•	-	1	1	
-	-	-	-	-		-	-	-	-	-	-	-	1	1	
-	-	-	-	-	-	-	-	-	-	-	-	-	•	-	

# **BEND TEST:**

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

Sub Divisional Officer Test Performed By: Dr. /Engr. Khurram

Highway Sub Division, Sheikhupura

**SOM Lab** 

Client Reference: 181/SKP Ref: 1256 (Page-1/1)

Dated: 30-07-2019 Dated: 07-08-2019

**Deformed** 

Gauge Length: 8 inch Sample Type: Bar

		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 <sup>2</sup>	in <sup>2</sup>	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	0.677	4	0.503	0.20	0.199	6.90	8.69	76100	76490	95770	96250	1.10	8.0	13.8	
2	0.679	4	0.505	0.20	0.200	6.95	8.82	76660	76660	97230	97230	1.10	8.0	13.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	•	-	•	-	1	-	
-	-	-	-	-	1		-	•	1	-	•	1	ı	-	
-	-	-	-	-	1		-	•	1	-	•	1	ı	-	
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-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

# **BEND TEST:**

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

Executive Engineer Test Performed By: Dr. /Engr. Khurram

**Highway Division, Multan** 

**SOM Lab** 

Client Reference: RAP/212/SE Ref: 1257 (Page-1/1)

Dated: 27-07-2019 Dated: 07-08-2019

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

Deformed

Gauge Length: 8 inch Sample Type: Bar

		D	ia.	Α	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 <sup>2</sup>	in <sup>2</sup>	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	0.677	4	0.503	0.20	0.199	6.44	8.46	71040	71400	93300	93770	1.10	8.0	13.8	
2	0.677	4	0.503	0.20	0.199	6.54	8.61	72170	72530	94990	95460	1.00	8.0	12.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-		
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	•	-	•	-	1	1	
-	-	-	-	-	-	-	-	-		-	-	1	•	1	
-	-	-	-	-	-	-	-	-		-	-	1	•	1	
-	-	-	-	-	-		-	-	1	-	•	-	1	1	
-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	
-	-	-	-	-	-	-	-	-	-	-	-	-	•	-	

# **BEND TEST:**

 No Bend test performed	Note:-
	Only Two Samples
	Received and Tested