

Regulation No. 54-Law/2010[(Clause 8(1)]

### Bangladesh Standards and Testing Institution Ministry of Industries



### Management Systems Certification Wing

116/A, Tejgaon Industrial Area, Dhaka-1208, Bangladesh

### Certificate

This is to certify that
the Quality Management Systems (QMS) of
Rahima Industrial Complex Limited

Mahona, Duptara, Rupganj, Narayanganj, Bangladesh has been assessed by MSC wing of BSTI and registered in compliance with

ISO 9001: 2015

### Scope of Certification:

Manufacturing of Reinforcing Steel Bars (Ribbed Bars) (B500 DWR & B420 DWR- 08 to 32mm)

Certificate No.: DHK-QMS-000000000092

Tracking No: MSC-CI-20241215-0002

Date of Issue : 26-12-2024

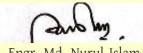
Date of Registration : 04-12-2024

Date of Expiry : 03-12-2027

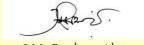








Engr. Md. Nurul Islam Head of MSC Wing



S.M. Ferdous Alam
Director General(Grade-1),BSTI

The conditions of the certificate are specified in the certification agreement.

This certificate must be returned if cancelled or withdrawn.



### বাংলাদেশ স্ট্যান্ডার্ডস এন্ড টেস্টিং ইনস্টিটিউশন

### শিষ্প মন্ত্রণালয় প্রধান কার্যালয়, ঢাকা



ইস্যু তারিখ: ১৫-০৫-২০২৪ খ্রিঃ

### স্ট্যান্ডার্ড চিহ্ন ব্যবহারের লাইসেন্স

স্মারক নং: ৩৬.০৫.০০০০.৩০২.৩২.১৭২.২৩ ট্রাকিং নং: CM-LI-20240515-0004

লাইসেন্স নম্বর: DHK-CM-000000004546

ইনস্টিটিউশন এতদারা **রহিমা ইন্ডাস্ট্রিয়াল কমপ্লেক্স লিঃ, মাহনা, দুগুারা, রূপগঞ্জ, নারায়ণগঞ্জ** এর **মোঃ সাইফুর রহমান** কে নিম্নের ছকে বর্ণিত পণ্য, দ্রব্য, সেবা বা প্রক্রিয়ায় ইনস্টিটিউশন কর্তৃক নির্ধারিত স্ট্যান্ডার্ড মার্ক ব্যবহার করিবার

লাইসেন্স প্রদান করা হইল।

পণ্য বা দ্রব্যের মোড়কে ইনস্টিটিউশন কর্তৃক প্রদত্ত মেশিন রিডেবল কোড ব্যবহার করিতে হইবে। লাইসেন্সধারী লাইসেন্স এর শর্তাবলি প্রতিপালন করিবেন। লাইসেন্সটির মেয়াদ হইবে ২৫-০৪-২০২৪ তারিখ হইতে ৩০-০৬-২০২৬ তারিখ পর্যন্ত।

মেয়াদ উত্তীর্ণের ৩ (তিন) মাস পূর্বে লাইসেন্স নবায়নের জন্য আবেদন করিতে হইবে।

### পণ্য, দ্রব্য, সেবা বা প্রক্রিয়ার বিবরণ

স্ট্যান্ডার্ড মার্ক	পণ্য, দ্ৰব্য, সেবা বা প্ৰক্ৰিয়া	সংশ্লিষ্ট বাংলাদেশ স্ট্যান্ডার্ড (বিডিএস) নম্বর
ESTI	পণ্য: শ্টিল ফর দি রি-ইনফোর্সমেন্ট অব কনক্রিট (রিবড বার) ব্র্যান্ড ও পণ্যের বিবরণ সংযুক্ত তালিকায়।	বিডিএস আইএসও ৬৯৩৫-২:২০২১

### লাইসেন্স ফি'র বিবরণ

ইউনিট	ইউনিট প্রতি লাইসেন্স ফি'র হার	পরিশোধের প্রকৃতি
প্রতি একশত টাকা এক্স ফ্যাক্টরি মূল্য (মূল্য সংযোজন কর ব্যতীত কারখানা বা		(ক) স্ট্যান্ডার্ড মার্ক ব্যবহারের জন্য নির্ধারিত হার অনুযায়ী বাৎসরিক লাইসেন্স ফি অগ্রিম পরিশোধ করা হইয়াছে;
প্রতিষ্ঠানের উৎপাদিত বা বাজারজাতকৃত দ্রব্যের বিক্রয়মূল্য)	0.\$0%	(খ) বাৎসরিক উৎপাদনের ভিত্তিতে হার অনুযায়ী অতিরিক্ত ফি প্রযোজ্য হইলে মেয়াদান্তে উহাও পরিশোধ করিতে হইবে।

বাংলাদেশ স্ট্যান্ডার্ডস এন্ড টেস্টিং ইনস্টিটিউশন এর পক্ষে



মোঃ নূকল আমিন পরিচালক (সিএম) ক্ষমতাপ্রাপ্ত কর্মকর্তার স্বাক্ষর ও সিল





## BANGLADESH UNIVERSITY OF ENGINEERING AND TECHNOLOGY (BUET) DEPARTMENT OF CIVIL ENGINEERING

Mobile: 01819557964; PABX: (8802) - 55167100, 55167228-57 Ext. 7226, Info: http://brtc.ce.buet.ac.bd/#/home, Report verification: http://verify.ce.buet.ac.bd



1 of 5

### STRENGTH OF MATERIALS LABORATORY

Sent by: Md. Saifur Rahman Khokon, Managing Director TEST OF DEFORMED M.S. BARS [ASTM A 615M-16]

Project Rahima Industrial Complex Ltd., Mawna, Duptara, Rupganj, Narayanganj. Rahima Industrial Complex Ltd., Mawna, Duptara, Rupganj, Narayanganj

Samples were received in UNSEALED condition.

Date of Test: 4/6/2024 Ref.: Letter, Dt. 3/6/2024 BRTC No.: 1103-24312/CE/23-24; Dt. 3/6/2024

	1	1	1			1	-	,	1	1	1	-	1	ω	2	1				No.	SI.
	1	1	1	1		ı	-	-	-	_	1	1	ı	RICL B420 DWR TMX	RICL B420 DWR TMX	RICL B420 DWR TMX				Identification	Frog Mark /
The second secon	1	_	-			1	-	1	1	1	-	1	1	10	10	10	mm	dia.	Nominal	Desig./	Bar
	-	•	-	1		1	-	1	1	-	-	1	1	10.1	9.9	10.0	mm		dia.	bar	Actual
	1	1	-	-		-		-	1	-	-	-	1	0.624	0.605	0.618	kg/m			Weight	Unit
	X							V	•			£ +	b		0.616		kg/m		Weight	Unit	Average
		•	1		1	1	_		-	1		-	-	36.9	34.9	35.9	kN		Load	Proof	Yield or
		•				•	•	-						467	441	454	MPa		Strength	Proof	Average   Yield or   Yield or
										•					(66000 psi)	454	MPa	(YS)	Strength Strength	Yield or Proof	Average
		-	,		,	-		-	-	1	1	-	1	53.1	52.1	53.1	KN			Load	Tensile
			-	08/////////////////////////////////////			-	1		1	State -	-	-	675	660	675	MPa			Strength	Tensile
3		1							,	,		1	•		(Isd nonze)	670	MPa	(TS)	Strength	Tensile	Average
With the transfer of the trans															1.40	3					SY/S1
	1	-									-			7.	7 -	72	200 mm)	(G. length =		(%)	Elongation
)		•	1									•			;	7			(%)	Elongation	
																				lest	Bend

Nominal area, sq.mm Nominal weight, kg/m Bar desig./Nominal dia., mm ASTM A615M-16 Weight Requirements and Nominal Area of bars (Table A1.1) 50.3 0.395 | 0.617 | 0.888 | 1.578 | 2.466 | 2.98 | 3.853 | 4.834 | 6.313 | 7.99 | 9.865 8 10 12 16 20 22 25 28 32 36 113 201 314 380 491 616 804 1018 1257 40 1963 50 60 1963 2827 15.41 22.2

Area and weight of 8mm and 22m dia. bars are derived based on principle follwed for other sizes in Table A1.1 Actual dia, and TS/YS ratio are provided for informative purpose only. These are not requirements of ASTM A615M-16. Measured unit weight shall not be less than 94% of the nominal weight. 8mm bar size is not covered in ASTM A615M-16. Actual diameter is the diameter of a perfectly round plain bar having same mass per unit length.

ASTM A615M-16 Tensile Requirements for Common Steel Grades

	Grade 60	Grade 75	Grade 80
	[420]	[520]	[550]
Tensile strength, min. psi [MPa]	90 000 [620]	90 000 [620] 100 000 [690] 105 000 [725]	105 000 [725]
Yield strength, min, psi [MPa]	60 000 [420]	60 000 [420] 75 000 [520] 80 000 [550]	80 000 [550]
Elongation in 8 in. [200 mm], min, %			
Bay Decimation No.			

28, 32, 36, 40, 50, 60

10, 12, 16, 20 Bar Designation No.

Countersigned by:

Prof. Dr. Hasib Mohammed Ahsan, Test-in-Charge Dept. of Civil Engg., BUET, Dhaka-1000, Bangladesh

06 June 2024

Test performed by:

Professor, Dept. of Civil Engg., BUET Dr. A.B.M. Badruzzaman

Important Note: Samples as supplied to us have been tested. BRTC does not have any responsibility as to the representative character of the samples required to be tested. It is recommended that samples are sent in a secure and sealed coverbacket/container under the signature of a competent authority. In order to avoid fradulent tabrication of test results, this report has been printed on a secure and sealed coverbacket/container under the signature of a competent authority. In order to avoid fradulent tabrication of test results, this report has been printed on a secure and sealed coverbacket/container under the signature of a competent authority. In order to avoid fradulent tabrication of test results, this report has been printed on a secure and sealed coverbacket/container under the signature of a competent authority. In order to avoid fradulent tabrication of test results, this report has been printed on a secure and sealed coverbacket/container under the signature of a competent authority. It is also recommended that the test results be collected by a duly authorized person.

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2 of 5

### STRENGTH OF MATERIALS LABORATORY

Sent by: Md. Saifur Rahman Khokon, Managing Director TEST OF DEFORMED M.S. BARS [ASTM A 615M-16]

Rahima Industrial Complex Ltd., Mawna, Duptara, Rupganj, Narayanganj

Project: Rahima Industrial Complex Ltd., Mawna, Duptara, Rupganj, Narayanganj

BRTC No.: 1103-24312/CE/23-24; Dt. 3/6/2024 Ref.: Letter; Dt. 3/6/2024

Date of Test: 4/6/2024

received in UNSEALED condition

Bar desig./Nominal dia., mm minal area, sq.mm 0.617 | 0.888 | 1.578 | 2.466 | 2.98 | 3.853 | 4.834 | 6.313 | 7.99 | 9.865 | 15.41 | 22.2 113 | 201 | 314 | 380 | 491 | 616 | 804 | 1018 | 1257 | 1963 | 2827 50 60

Actual dia, and TS/YS ratio are provided for informative purpose only. These are not requirements of ASTM A615M-16. Area and weight of 8mm and 22m dia. bars are derived based on principle follwed for other sizes in Table A1.1 Actual diameter is the diameter of a perfectly round plain bar having same mass per unit length. deasured unit weight shall not be less than 94% of the nominal weight. 8mm bar size is not covered in ASTM A615M-16.

ASTM A615M-16 Tensile Requirements for Common Steel Grades

Elongation in 8 in. [200 mm], min, % Bar Designation No. 10, 12, 16, 20	Tensile strength, min. psi [MPa] Yield strength, min, psi [MPa]		111111111111
9	90 000 [620] 60 000 [420]	Grade 60 [420]	
7	90 000 [620] 100 000 [690] 105 000 [725] 60 000 [420] 75 000 [520] 80 000 [550]	Grade 75 [520]	
7	105 000 [725] 80 000 [550]	Grade 80 [550]	

Countersigned by:

Dept. of Civil Engg., BUET, Dhaka-1000, Bangladesh Prof. Dr. Hasib Mohammed Ahsan, Test-in-Charge

> Test performed by: 06 June 2024

Dr. A.B.M. Badruzzaman

Professor, Dept. of Civil Engg., BUET

Important Note: Samples as supplied to us have been tested. BRTC does not have any responsibility as to the representative character of the samples required to be tested. It is recommended that samples are sent in a secure and sealed coverbacket/container under the signature of a competent authority. In order to avoid fradulent fabrication of test results, this report has been printed on a secure and sealed coverbacket/container under the signature of a competent authority. In order to avoid fradulent fabrication of test results, this report has been printed on a secure and sealed coverbacket/container under the signature of a competent authority. In order to avoid fradulent fabrication of test results, this report has been printed on a secure and sealed coverbacket/container under the signature of a competent authority. In order to avoid fradulent fabrication of test results, this report has been printed on a secure and sealed coverbacket/container under the signature of a competent authority. 28, 32, 36, 40, 50, 60 It is also recommended that the test results be collected by a duly authorized person.

> BUETCE DO 22 5



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# STRENGTH OF MATERIALS LABORATORY

Sent by: Md. Saifur Rahman Khokon, Managing Director TEST OF DEFORMED M.S. BARS [ASTM A 615M-16]

Rahima Industrial Complex Ltd., Mawna, Duptara, Rupgani, Narayangani

Rahima Industrial Complex Ltd., Mawna, Duptara, Rupgani, Narayangani

Ref.: Letter; Dt. 3/6/2024 BRTC No.: 1103-24312/CE/23-24; Dt. 3/6/2024 Date of Test: 4/6/2024

1	1	-	1	1	1	-	1		-	1	-	3	2	-7				No.	SI.	
4	1	-		1	1	_		-	-	•	-	RICL B420 DWR TMX	RICL B420 DWR TMX	RICL B420 DWR TMX				Identification	Frog Mark /	
-	-	-	-	-1	•	-	r	-		-		16	16	16	mm	dia.	Nominal	Desig./	Bar	
-	•	-	1	1				-			1	16.1	16.1	16.0	mm		dia.	bar	Actual	
1	1	1	1	1	1			1	-	-	1	1.588	1.588	1.576	kg/m			Weight	Unit	
				1		V		J			To the second		1.584		kg/m		Weight	Unit	Average	
		1	1	t	1		1	-		-	N-100	88.5	87.5	87.5	kN		Load	Proof	Yield or	
				•	•	1						440	435	435	MPa		Strength	Proof	Average   Yield or   Yield or	
							(a)	,			•		(63500 psi)	437	MPa	(YS)	Strength Strength	77177	Average	
	-	-	\\\-\\\-\\\\-\\\\-\\\\\-\\\\\\-\\\\\\\\	-	-		1	-	1	1	1	140	140	140	KN			Load	Tensile	
	1	-	######################################	7	-	7				-	-	695	695	695	MPa			Strength	Tensile	samples we
	-			1			1			1	•		(101000 psi)	695	MPa	(TS)	Strength	Tensile	Average	Samples were received in UNSEALED condition.
				,						•			1.59						TS/YS	JINGEALE
-	-	-							1	1	-	17	18	17	200 mm)	(G. length =		(%)	Elongation	D condition.
				1			•			•	<u> </u>		7,	ì			(%)	Elongation	Average	
-								•										Test	Bend	

Area and weight of 8mm and 22m dia. bars are derived based on principle follwed for other sizes in Table A1.1 Measured unit weight shall not be less than 94% of the nominal weight. 8mm bar size is not covered in ASTM A615M-16. Nominal weight, kg/m

0.395 | 0.617 | 0.888 | 1.578 | 2.466 |

Bar desig./Nominal dia., mm

STM A615M-16 Weight Requirements and Nominal Area of bars (Table A1.1)

50 60

Conversion factor: 1.0 MPa = 1.0 N/mm<sup>2</sup> = 145 psi. Strengths are based on nominal area.

314

2.98 3.853 4.834 6.313 7.99 9.865 15.41 22.2 380 | 491 | 616 | 804 | 1018 | 1257 | 1963 | 2827

Nominal area, sq.mm

Actual diameter is the diameter of a perfectly round plain bar having same mass per unit length. Actual dia, and TSYS ratio are provided for informative purpose only. These are not requirements of ASTM A615M-16.

ASTM A615M-16 Tensile Requirements for Common Steel Grades

7	14	, <b>o</b>	
80 000 [550]	75 000 [520]	60 000 [420]	MPa] m], min, %
105 000 [725]	100 000 [690] 105 000 [725]	90 000 [620]	i [MPa]
[550]	[520]	[420]	
Grade 80	Grade 75	Grade 60	

Tensile strength, min. ps

It is also recommended that the test results be collected by a duly authorized person.

28, 32, 36, 40, 50, 60 10, 12, 16, 20 Bar Designation No. Elongation in 8 in. [200 m Yield strength, min, psi [

Countersigned by:

Dept. of Civil Engg., BUET, Dhaka-1000, Bangladesh Prof. Dr. Hasib Mohammed Ahsan, Test-in-Charge

06 June 2024

Test performed by:

Professor, Dept. of Civil Engg., BUET Dr. A.B.M. Badruzzaman

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4 of 5



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### STRENGTH OF MATERIALS LABORATORY

### TEST OF DEFORMED M.S. BARS [ASTM A 615M-16]

Sent by: Md. Saifur Rahman Khokon, Managing Director

Rahima Industrial Complex Ltd., Mawna, Duptara, Rupganj, Narayanganj

Project Rahima Industrial Complex Ltd., Mawna, Duptara, Rupganj, Narayanganj.

Ref.: Letter; Dt. 3/6/2024 Date of Test: 4/6/2024

BRTC No.: 1103-24312/CE/23-24; Dt. 3/6/2024

1	ı	1	-	1	1		,	,	,		1	ω	2	1				No.	SI.	
1	-	-	1	1		•			•		-1	RICL B420 DWR TMX	RICL B420 DWR TMX	RICL B420 DWR TMX				Identification	Frog Mark /	
_	-	_	-	1	,				-		-	20	20	20	mm/	dia.	Nominal	Desig./	Bar	
1	_	-	1	-	-	-	1			-	-	20.0	20.1	20.0	mm		dia.	bar	Actual	
1	_		1		-	-	1	1	-	-	1	2.462	2.497	2.457	kg/m			Weight	Unit	
				-		V	•				V		2.472		kg/m		Weight		1111	
	ı	1	T	-	1	1	-	1	-	ı		133	136	134	kN		Load	Proof	Yield or	
	•		•	•	•	-				•		423	433	427	MPa		Strength	Proof	Average   Yield or   Yield or	
								•					(62000 psi)	428	MPa	(YS)	Strength	Yield or Proof	Average	
X		-	1	1	-	-	1	-	-		-	212	214	212	KN			Load	Tensile	
	-		-	,	-	1			7-1-	-	-	675	680	675	MPa			Strength	Tensile	Campion sec
	1			,						1	•		(18d 000 psi)	089	MPa	(TS)	Strength	Tensile	Average	Campies were received in case-, in-
													1.59	1					TS/YS	
	1		-								•	7.	71	1 1	200 mm)	(G. length =		(%)	Elongation	
	-			-						-l			•	1			(%)	Elongation		
-												•		•				Test	Bend	

Bar desig./Nominal dia., mm ASTM A615M-16 Weight Requirements and Nominal Area of bars (Table A1.1) 201 314 380 491 616 804 1018 28 32 36 40 1257

ominal weight, kg/m ominal area, sq.mm

Actual dia. and TS/YS ratio are provided for informative purpose only. These are not requirements of ASTM A615M-16. Area and weight of 8mm and 22m dia. bars are derived based on principle follwed for other sizes in Table A1.1 Actual diameter is the diameter of a perfectly round plain bar having same mass per unit length Weasured unit weight shall not be less than 94% of the nominal weight. 8mm bar size is not covered in ASTM A615M-46.

0.395 | 0.617 | 0.888 | 1.578 | 2.466 | 2.98 | 3.853 | 4.834 | 6.313 | 7.99 | 9.865

1963 60 2827

Conversion factor: 1.0 MPa = 1.0 N/mm<sup>2</sup> = 145 psi. Strengths are based on nominal area.

ASTM A615M-16 Te

- to rensue reduitements for common steel orages	THIS TOT COMMITTE	annual laste un	•
	Grade 60	Grade 75	Grade 80
	[420]	[520]	[550]
gth, min. psi [MPa]	90 000 [620]	90 000 [620] 100 000 [690] 105 000 [725]	105 000 [725]
ı, min, psi [MPa]	60 000 [420]	60 000 [420] 75 000 [520] 80 000 [550]	80 000 [550]
8 in. [200 mm], min, %	1//		
on No.			

Yield strength

28, 32, 36, 40, 50, 60

10, 12, 16, 20 Bar Designation Elongation in Tensile streng

Countersigned by:

Prof. Dr. Hasib Mohammed Ahsan, Test-in-Charge Dept. of Civil Engg., BUET, Dhaka-1000, Bangladesh

06 June 2024

Dr. A.B.M. Badruzzaman Test performed by:

Professor, Dept. of Civil Engg., BUET

Important Note: Samples as supplied to us have been tested. BRTC does not have any responsibility as to the representative character of the samples required to be tested. It is recommended that It is also recommended that the test results be collected by a duly authorized person. samples are sent in a secure and sealed cover/packet/container under the signature of a competent authority. In order to avoid fradulent fabrication of test results, this report has been printed on a secure and sealed cover/packet/container under the signature of a competent authority. In order to avoid fradulent fabrication of test results, this report has been printed on a secure and sealed cover/packet/container under the signature of a competent authority. In order to avoid fradulent fabrication of test results, this report has been printed on a secure and sealed cover/packet/container under the signature of a competent authority. In order to avoid fradulent fabrication of test results, this report has been printed on a secure and sealed cover/packet/container under the signature of a competent authority.