

(Garuda)

Certificate No. 20T076/1054

Certificate of Laboratory Accreditation

by Virtue of National Standardization Act B.E. 2551 (2008)

Secretary-General, Thai Industrial Standards Institute

Issues this Certificate to

Dextra Manufacturing Company Limited

Laboratory address :

128 Soi Chaloem Phra Kiat Rama IX, Soi 48, Dok Mai, Prawet, Bangkok

This laboratory is accredited for testing
in accordance with the Thai Industrial Standard TIS 17025-2561 (2018) (ISO/IEC 17025:2017)
General requirements for the competence of testing and calibration laboratories

Accreditation No. TESTING 0428

The scope of accreditation is as annexed hereto.

Valid from 20th April B.E. 2563 (2020)

Valid until 19th April B.E. 2566 (2023)

Issue date 29th April B.E. 2563 (2020)

(Signature)

(Mr. Verakit Rantakittanawat)

Deputy Secretary - General

For Secretary - General

Thai Industrial Standards Institute

Translation approved

(Mr. Ekanit Romyanon)

Director

Office of the National Standardization Council

Date 7th May 2020

Ministry of Industry, Thai Industrial Standards Institute

Translation Note: In the event of doubt or misunderstanding, the original in Thai shall be the authoritative.



Scope of Accreditation for Testing

Certificate No. 20T076/1054

Laboratory name Dextra Manufacturing Company Limited
 Address 128 Soi Chaloem Phra Kiat Rama IX, Soi 48, Dokmai, Prawet, Bangkok
 Accreditation No. TESTING 0428
 Laboratory Status ☒ Permanent ☐ Site ☐ Temporary ☐ Mobile

Field of Testing	Specific Test	Test Method
Civil field		
1. Steel bars for reinforced concrete: deformed bars	- Tensile strength - Yield Strength - Elongation Load 1 kN to 2 000 kN	- TIS 24-2559
2. Steel reinforcing bars	- Tensile strength - Yield Strength - Elongation - 0.2 % Proof strength Load 1 kN to 2 000 kN	- ASTM A370-14
	- Tensile strength - Yield Strength - Elongation - 0.2 % Proof strength - Percentage total elongation at maximum force (Agt.) Load 1 kN to 2 000 kN	- ISO 15630-1:2010
3. Mechanical splice	- Tensile strength Load 1 kN to 2 000 kN	- ASTM A1034/A1034M-10a - California test 670, December 2013
	- Tensile strength - Percentage total elongation at maximum force (Agt.) Load 1 kN to 2 000 kN	- ISO 15835-2:2009 - ISO 15835-2:2018 - NF A35-020-2-1, 25 November 2017 - BS 8597:2015 - ISO 15630-1:2010 - JGJ 107:2016 - JSCE:2007 - IS 16172:2014

Issue No. 1 Valid from 20th April B.E. 2563 (2020) Page 1/5

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Field of Testing	Specific Test	Test Method
Civil field 3. Mechanical splice (cont.)	<ul style="list-style-type: none"> - Stiffness value Load 1 kN to 2 000 kN - Strain value Load 1 kN to 2 000 kN - Tensile test at low temperature of (-7 °C) or less Load 1 kN to 2 000 kN - Slip in tension test Load 1 kN to 2 000 kN - Slip in compression test Load 1 kN to 2 000 kN - Permanent deformation after loading Load 1 kN to 2 000 kN 	<ul style="list-style-type: none"> - JSCE:2007 - ACI 349-13 clause 12.14.3.7 - Sellafield Technical Standard ES_0_3110_2 – Issue 3 - ASME BPVC Sec III Div 2 (2013) clause CC-3532 (e) - ASME BPVC Sec III Div 2 (2013) clause CC-4333.2.3 (a) - Sellafield Technical Standard ES_0_3110_2 – Issue 3 - ASTM A1034/A1034M-10a - ISO 15835-2:2009 - ISO 15835-2:2018 - California test 670, December 2013 - BS 8597:2015 - JGJ 107:2016 - JSCE:2007 - IS 16172:2014 - BS 8597:2015 - NF A35-020-2-1, 25 November 2017

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Civil field		
3. Mechanical splice (cont.)	<ul style="list-style-type: none"> - Static compression test - Static tension test Load 1 kN to 2 000 kN - Cyclic tension test Load 1 kN to 2 000 kN - Cyclic tension and compression test Load 1 kN to 1 000 kN - Low cyclic loading test Load 1 kN to 1 000 kN - Low cyclic loading test: Alternating tension and compression of high stress (S1) - Low cyclic loading test: Alternating tension and compression of large strain (S2) Load 1 kN to 1 000 kN - Oligocyclic test Load 1 kN to 1 000 kN 	<ul style="list-style-type: none"> - ICC Evaluation service AC133 approved October 2015 - Sellafield Technical Standard ES_0_3110_2 – Issue 3 - ASME BPVC Sec III Div 2 (2013) clause CC-4333.2.3 (b) - IS 16172:2014 - California test 670, December 2013 - ICC Evaluation service AC133 approved October 2015 - ISO 15835-2:2018 - ISO 15835-2:2009 - JGJ 107:2016 - JSCE:2007 - NF A35-020-2-1, 25 November 2017

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Civil field		
4. Mechanical anchorage	<ul style="list-style-type: none"> - Static loading test - Wedge tensile test <p>Load 1 kN to 2 000 kN</p>	<ul style="list-style-type: none"> - ISO 15698-2:2012
	<ul style="list-style-type: none"> - Tensile test - Permanent deformation after loading - Oligocyclic test <p>Load 1 kN to 1 000 kN</p>	<ul style="list-style-type: none"> - NF A35-020-2-2, 25 November 2017
	<ul style="list-style-type: none"> - Cyclic tension test - Tension test - Head rigidity test <p>Load 1 kN to 2 000 kN</p>	<ul style="list-style-type: none"> - ICC Evaluation service AC347 approved January 2013
5. Round bars	<ul style="list-style-type: none"> - Tensile strength - Yield strength - Elongation - Reduction of area <p>Load 1 kN to 2 000 kN</p>	<ul style="list-style-type: none"> - ASTM A370-14 - ASTM E8/E8M-16a - BS EN 10002-1:2001 - ISO 6892-1:2016 - JIS Z 2241:2011 - AS 1391:2007
	<ul style="list-style-type: none"> - Percentage total elongation at maximum force (Agt.) 	<ul style="list-style-type: none"> - ISO 15630-1:2010

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Field of Testing	Specific Test	Test Method
Civil field		
6. Tubular bars	<ul style="list-style-type: none"> - Tensile strength - Yield strength - Elongation Load 1 kN to 2 000 kN	<ul style="list-style-type: none"> - ASTM A370-14 - ASTM E8/E8M-16a - BS EN 10002-1:2001 - ISO 6892-1:2016 - JIS Z 2241:2011
7. Metallic materials	Hardness test <ul style="list-style-type: none"> - HRB - HRC 	<ul style="list-style-type: none"> - ASTM E18-19 - JIS Z 2245:2016 - ISO 6508-1:2016

Issue date 29th April B.E. 2563 (2020)

(Signature)

(Mr. Verakit Rantakittanawat)

Deputy Secretary - General

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