

## TEST REPORT

TR

**Product** : **REINFORCEMENT COUPLERS FOR MECHANICAL SPLICES FOR 32mm DIAMETER REBAR GRADE B600D-R**

**Type of Test** : **AXIAL FORCE HIGH CYCLE FATIGUE TEST**

**Test Requirement/ Method** : ISO 15835-1: 2018 – Steels for reinforcement of concrete – Reinforcement couplers for mechanical splices of bars – Part 1: Requirements.  
ISO 15835-2: 2018: - Steels for reinforcement of concrete – Reinforcement couplers for mechanical splices of bars – Part 2: Test methods

**Date of Issue** : 12<sup>th</sup> of March 2025

**Name of Client** : **GPH ISPAT LIMITED**

**Address (Office)** : Crown Chamber,  
325 Asadgonj,  
Chattogram-4000,  
Bangladesh.

**Sampling Location** : N/A

**Job Ref. No.** : AMS/24333/GPH/02

**TPIB No.** : N/A

**Test Report Series** : 9 of 9

**No. of Sample** : refer attachment

**Sample Nominal Size** : N/A

**Date of Receipt** : 29<sup>th</sup> of November 2024

**Date of Test** : 19<sup>th</sup> to 21<sup>st</sup> of February 2025

**Tested By** : Nusantara Technologies Sdn Bhd.

**Prepared by :**



Name : **Mohamad Fazli bin Halim**  
Test Engineer  
Construction Research Institute  
of Malaysia (CREAM)



**Approved by :**



Name : **Lab Manager**  
Makmal Kerja Raya Malaysia  
Construction Research Institute  
of Malaysia (CREAM)

Report Ref. No. : TR/24333/GPH/02/09

Page No. : Page 1 of 3

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**Construction Research Institute of Malaysia (CREAM)**

Makmal Kerja Raya Malaysia,  
Lot 8, 1st Floor, Seksyen 91, Jalan Chan Sow Lin,  
55200 Kuala Lumpur, MALAYSIA  
Tel: +603 – 9212 0165 Fax: +603 – 2779 1474  
Email: [general@cream.my](mailto:general@cream.my) Website: <http://www.cream.my>

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**END OF TEST REPORT**



Report Ref. No. : TR/24333/GPH/02/09

Page No. : Page 3 of 3

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Title

Page 1 of 2

**MECHANICAL TEST  
REPORT**

Your Ref. :	Report No.	Date Received :
Our Ref. : NT/250608-01	<b>MAT/0608-01/25</b>	February 12, 2025
Issue No. : 01		Date Tested : February 19, 2025 -
Revision No. : 00		February 23, 2025
		Date Issued : March 03, 2025

Client

**CONSTRUCTION RESEARCH INSTITUTE OF MALAYSIA (CREAM)**Level 14, CIDB 520, The Met Corporate Towers,  
No. 20, Jalan Dutamas 2,  
50480 Kuala Lumpur.

Sample Information

Subject	To Conduct Mechanical Test on Reinforcement Bar with Coupler	
Sample Description	Reinforcement Bar with Coupler	
Material Specification	B600D-R	
Material Size	Ø32 mm (Reinforcement Bar)	
Test Required	1.0 Axial force Fatigue Test (High-Cycle)	3 pcs.
Test Specification	ISO 15835 PART 1 – 2018 EDITION	

*Disclaimer : "The sample and its information have been provided by the customer, and the test results applied to the sample as received"*

Tested by :

Mohd Salman Bin Mohd Isa  
Sr. Lab. Technician  
(No Signature Required)

Prepared by :

Artikah Binti Meor Radhi  
Material Engineer

Approved Signatory :

Norhidayah Binti Saidon  
Sr. Material Engineer**This report shall not be reproduced without written approval from Nusantara Technologies Sdn. Bhd.**

Metrology &amp; NDT Division : No. 9, Jalan Sungai Jeruh 32/196, Seksyen 32, Bukit Kemuning, 40460 Shah Alam, Selangor Darul Ehsan, Malaysia. Tel: 603-5525 1766 Fax: 603-5525 2766

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MAT/0608-01/25

Issue No. : 01 (Rev00)

**TEST RESULT**

(Sample Reference : PI/WPS/AWS/FCAW/355/4G)

Page 2 of 2

**1.0 Axial force Fatigue Test (High-Cycle)**

- |   |  |
|---|--|
| 1.1 Type of Fatigue Specimen            | : Reinforcement Bar with Coupler   |
| 1.2 Test Method                         | : ISO 15835 PART 2 – 2018 EDITION  |
| 1.3 Fatigue Requirement                 | : Test specimen shall survived at least $2 \times 10^6$ cycles without failure |
| 1.4 Stress Range                        | : 60 N/mm <sup>2</sup>   |
| 1.5 Upper Stress (0.6R <sub>min</sub> ) | : 360 N/mm <sup>2</sup>  |

Specimen No.	Sample 1	Sample 2	Sample 3
Coupler Length (mm)	72	72	72
Coupler Diameter (mm)	50	50	50
Bar Nominal Diameter (mm)	32	32	32
Bar Nominal Cross Section Area (mm <sup>2</sup> )	804	804	804
Mechanical Splice Length (mm)	136	136	136
Free Length (mm)	448	448	448
Specimen Length (mm)	890	890	890
Stress Range $\sigma_s$ (N/mm <sup>2</sup> )	60	60	60
Upper Stress, 0.6 R <sub>min spec.</sub> (N/mm <sup>2</sup> )	360	360	360
Cycle	2000055	2000055	2000050
Observation	No Failure	No Failure	No Failure



The above mentioned test were witnessed by

Name :

Name :

Name :

\*\*\*\*\*END OF REPORT\*\*\*\*\*

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