

## TEST REPORT

TR

**Product** : **REINFORCEMENT COUPLERS FOR MECHANICAL SPLICES FOR 32mm DIAMETER REBAR GRADE B500DWR**

**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/01

**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  
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Approved by :



Name : **Anwarul Hossain**  
Lab Manager  
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Report Ref. No. : TR/24333/GPH/01/09

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**END OF TEST REPORT**



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SAMM NO. 545

Title		Page 1 of 2	
<b>MECHANICAL TEST REPORT</b>			
Your Ref. : Our Ref. : NT/250607-01 Issue No. : 01 Revision No. : 00	Report No.  <b>MAT/0607-01/25</b>	Date Received : February 12, 2025 Date Tested : February 19, 2025 - February 21, 2025 Date Issued : March 03, 2025	
Client  <b>CONSTRUCTION RESEARCH INSTITUTE OF MALAYSIA (CREAM)</b> 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 : B500DW/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	

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Report No.  MAT/0607-01/25 Issue No. : 01 (Rev00)	Title  <b>TEST RESULT</b> (Sample Reference : PI/WPS/AWS/FCAW/355/4G)	Page 2 of 2
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**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 :  $60 \text{ N/mm}^2$   
1.5 Upper Stress ( $0.6R_{eh}$ ) :  $300 \text{ N/mm}^2$

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 ( $\text{mm}^2$ )	804	804	804
Mechanical Splice Length (mm)	136	136	136
Free Length (mm)	448	448	448
Specimen Length (mm)	890	890	890
Stress Range $\sigma_a$ ( $\text{N/mm}^2$ )	60	60	60
Upper Stress, $0.6 R_{eh}$ spec. ( $\text{N/mm}^2$ )	300	300	300
Cycle	2000051	2000057	2000055
Observation	No Failure	No Failure	No Failure



The above mentioned test were witnessed by

Name : _____	Name : _____	Name : _____
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\*\*\*\*\* END OF REPORT \*\*\*\*\*

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