MATERIAL TEST REPORT

DISSOLVABLE MAGNESIUM ALLOY ROD · CERTIFICATE OF ANALYSIS & CONFORMANCE

SAMPLE REPORT · CUSTOMER, ORDER, HEAT AND MILL IDENTIFIERS REDACTED · VALUES FROM A 2026 PRODUCTION LOT

1 CONSIGNMENT

CUSTOMER [redacted]	CUSTOMER P.O. NO. [redacted]	CUSTOMER PART NO. [redacted]
DATE OF SHIPMENT **2026-09-09**	QUANTITY **10 bars**	PALLET / CASE NO. —

2 MATERIAL & PRODUCTION

PRODUCT **Dissolvable Mg alloy rod**	GRADE **EM-300**	CONDITION **Extruded round bar**
SIZE SUPPLIED **Ø115 × 1000 mm**	HEAT NO. [redacted]	PRODUCTION LOG NO. [redacted]
PRODUCING MILL **Disclosed under NDA**	COUNTRY OF ORIGIN **China**	DATE OF MANUFACTURE **2026-09-09**

3 MECHANICAL PROPERTIES

Room temperature, longitudinal

PROPERTY	RESULT	SPECIFIED MINIMUM
Tensile strength	**208 MPa**	200 MPa
Yield strength	**143 MPa**	140 MPa
Elongation	**25.1 %**	25.0 %

SAMPLE

4 DISSOLUTION RATE

Static immersion, 3% KCl at 93 °C (199 °F)

PROPERTY	RESULT	SPECIFIED RANGE
Dissolution rate	**16.2 mg/cm²·hr**	15 – 31 mg/cm²·hr

5 DIMENSIONS & VISUAL EXAMINATION

CHARACTERISTIC	RESULT	REQUIREMENT
Outside diameter	**114.6 – 115.2 mm**	115 mm nominal
Length	**1000 – 1002 mm**	1000 mm nominal
Surface and visual	**No cracks, laps or inclusions**	Free from defects

6 CHEMICAL COMPOSITION

Heat analysis

CHARACTERISTIC	RESULT	REQUIREMENT
Alloy system	Magnesium – zinc – rare earth – nickel	Grade EM-300
Heat analysis, all specified elements	Verified — conforms	Producer internal specification

STATEMENT OF CONFORMANCE

Expectation System Limited certifies that the material identified in this report **conforms in all respects** to the specified requirements shown above, and that the results recorded here are true and correct transcriptions of the mill test records held on file.

No deviation from the specified requirements has been made, except as recorded in written deviation approvals attached to this report.

Authorized signatory — NAME AND TITLE

2026-09-16 — DATE

SAMPLE

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