

Product

Dissolvable Magnesium Alloy Rod — Grade EM-300

High-elongation grade for downhole dissolvable frac plugs

Product Form & Dimensions

Product form	Solid extruded round bar (rod)
Available diameter	80–125 mm (3.15–4.92 in); commonly 115 mm & 125 mm; 115 mm in stock
Length	Up to 1.0 m (39.4 in)
Density	1.8 g/cm ³ (0.065 lb/in ³)
Indicative weight (1 m bar)	ø92 mm ≈ 12.0 kg (26.5 lb) · ø115 mm ≈ 18.7 kg (41.2 lb) · ø120 mm ≈ 20.4 kg (45.0 lb) · ø125 mm ≈ 22.1 kg (48.7 lb)

Mechanical Properties (room temperature, longitudinal)

Property	Metric	Imperial
Tensile strength	≥ 200 MPa	≥ 29.0 ksi
Yield strength	≥ 140 MPa	≥ 20.3 ksi
Elongation	≥ 27%	≥ 27%
Compressive strength	Part-dependent	Part-dependent

Dissolution

Test method	Static immersion
Test condition	3% KCl @ 93 °C (199 °F)
Dissolution rate	15–31 mg/cm ² ·hr

Quality & Documentation

Certifications	ISO 9001 / ISO 14001 / ISO 45001
Lot documentation	Per-lot mechanical test report + dissolution data, lot-traceable
Chemical composition	Proprietary (not disclosed)

Notes

- Mechanical values are typical minimums on longitudinal extruded rod; final acceptance values at the specified diameter are confirmed on the certified production lot.
- Compressive strength is governed by finished-part geometry and is not specified on raw bar.
- Dissolution figures are laboratory reference values under the stated condition; performance under the actual service condition (temperature / fluid chemistry) should be validated.