



HD-GABION Evert Koorenhof

ul. Graniczna 27, 34-120 Targanice, Polska · NIP PL 5512668057

+48 500 845 353 · info@hd-gabion.pl · hd-gabion.pl · Zakład produkcyjny: ul. Krakowska 83D, 34-120 Andrychów

Technical data sheet — HDGDEF Defence modular baskets

Issue: 16-09-2026 · supersedes previous issues.

Product description

HDGDEF HD-GABION™ is a multicellular defensive structure built from **welded steel wire mesh panels** lined with geotextile. Panels are welded from bare wire in our plant and **hot-dip galvanised after welding**, so the coating also covers the welds. Cells are joined with spiral connectors into a rigid modular unit; modules are joined lengthwise and widthwise with galvanised connecting pins.



Filled HDGDEF units with geotextile lining



HDGDEF barrier in three tiers

Mesh, wire and coating

Mesh size	100 × 100 mm (other sizes on request: 100 × 50 mm, 50 × 100 mm)
Wire	Ø 4,0 mm; Ø 4,5 or 5,0 mm on request
Wire diameter tolerance	± 0,07 mm — EN 10218-2 (class T1), DIN EN 10017
Tensile strength (specification)	540–770 MPa (N/mm ²)

Elongation	7% ± 2% (250 mm sample)
Galvanising	hot-dip after welding, to EN ISO 1461
Coating thickness	measured per batch by the galvanising plant (Positector 6000). Batch of 14-09-2026: mean 104 µm on mesh, 86 µm on profiles, panels and spacers.
Welds	weld shear tested to EAD 200020-00-0102 and EN 10223-8
Connectors	spiral connectors, connecting pins and hog rings, Ø 4,0 mm, galvanised
Geotextile	nonwoven, UV-stabilised, 150–300 g/m ² ; standard colour grey, other colours on request

Independent testing

The welded mesh (Ø 4,0 mm wire) was tested by the **Building Research Institute (ITB)**, Warsaw, in a laboratory accredited by the Polish Centre for Accreditation (No. AB 023) — report **LZK00-01903/26/Z00NZK**, 17-08-2026: static tensile test to PN-EN ISO 6892-1:2020-05 and weld shear strength to EAD 200020-00-0102 / EN 10223-8.

Property	Mesh 100 × 100 mm	Mesh 100 × 50 mm
Tensile strength R_m (mean)	663 MPa	655 MPa
Proof strength $R_{p0,2}$ (mean)	606 MPa	590 MPa
Maximum tensile force F_m (mean)	8,36 kN	8,25 kN
Weld shear strength $F_{m,s}$ (mean / min.)	5,41 / 5,02 kN	5,58 / 5,20 kN

Values relate to the samples tested. The full report is published in its entirety at hd-gabion.pl/jakosc-i-dokumenty. The laboratory marked the weld shear test as outside the scope of accreditation. A further independent test series is under way following adjustment of our spot-welding machine.

Sizes

Model	Height (m)	Width (m)	Length (m)	Cells	Fill (m ³)	Units per pallet
HDGDEF 10	1,00	1,00	10,00	10	12,00	8
HDGDEF 20	1,00	1,00	20,00	20	23,00	4

Height, width, length and fill volume are nominal values; fill includes an allowance for compaction. Other sizes are made to order.



Folded HDGDEF panels on pallets, ready for shipment

Deployment

- Take the unit off the pallet near its final position.

- Unfold and extend the unit to its full length and place it to the project layout.
- Join cells with spiral connectors; join modules lengthwise and widthwise with connecting pins before filling.
- Fold the lower part of the geotextile liner inward in each cell to retain the fill.
- Fill uniformly with locally available soil, sand, gravel or crushed stone and compact at intervals.
- When stacking units, interconnect them around the perimeter of the shared walls.

Structural design, ground conditions and drainage remain the responsibility of the client's engineer. HD-GABION supplies the baskets and the bill of materials for the stated geometry.