



GARWARE-WALL ROPES LTD.

GEOSYNTHETICS DIVISION

Specifications of Polymer Rope Gabions

ISO 9001:2008 Company

Garware Polymer Rope Gabions are manufactured using Polypropylene(PP)ropes of diameter ranging from 9 to 16 mm having adequately stabilized for degradation against Ultraviolet radiation. The Rope used to manufacture these gabions is 4 strand shroud laid. The construction of the nets is woven joint with intersection of the ropes. As polymer is inert to corrosive coastal environment, polymer rope gabions are highly preferred for coastal protection works.

Polymer rope Gabions are ideally suited as armour layer in resisting all erodible effects of waves. Boulder fill can be done in-situ or gabions can be prefilled and installed in place with the help of crane. Adjacent gabions are tied together to form a continuous monolithic structure.

| Property | Test Method | Unit | Tolerance | Mesh 100 | | | | | Mesh 150 | | | | |
|---|---|---------|-----------|----------|---------|---------|---------|---------|----------|---------|---------|---------|---------|
| | | | | 100x100 | 100x100 | 100x100 | 100x100 | 100x100 | 150x150 | 150x150 | 150x150 | 150x150 | 150x150 |
| Mesh opening size | Physical | mm | (±) 5% | 100x100 | 100x100 | 100x100 | 100x100 | 100x100 | 150x150 | 150x150 | 150x150 | 150x150 | 150x150 |
| Rope Diameter | IS 7071 Part 1 to 3 | mm | Nominal | 8 | 9 | 10 | 12 | 16 | 8 | 9 | 10 | 12 | 16 |
| Linear Density of the Rope | IS 7071 Part 1 to 3 | grams/m | (±) 8% | 30 | 40 | 45.2 | 65.1 | 116 | 29 | 40 | 45.2 | 65.1 | 116 |
| Breaking Strength of Rope | IS 7071 Part 4 | kg | Min. | 1200 | 1560 | 1560 | 1900 | 3350 | 1200 | 1560 | 1560 | 1900 | 3350 |
| Abrasion resistance of Rope after 1000 cycles, % Strength retention | Annex A | % | Min. | 85 | 85 | 85 | 85 | 85 | 85 | 85 | 85 | 85 | 85 |
| Thermal Stability, 45 ^{OC} , 3 Hours % Strength retention | Annex A | % | Min. | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 |
| Rope Net Strength | Annex A | kg/m | Min. | 10000 | 15000 | 15000 | 18000 | 25000 | 7500 | 10000 | 10000 | 15000 | 20000 |
| Punching Shear Strength | Annex A | kg | Min. | 5000 | 6000 | 7000 | 8000 | 10000 | 4000 | 5000 | 6000 | 7000 | 8000 |
| Standard sizes of the Gabions (±5%) | 1mx1mx1m, 1mx1mx0.5m, 2mx1mx1m, 2mx1mx0.5m, 3mx1mx1m, 4mx1mx1m with/without partition, lid & slings | | | | | | | | | | | | |

Remarks

1. The given values are indicative which are derived from tests carried out in our In-house test facilities & verified by independent Accredited laboratories.
2. Gabion and sizes can be altered as per site conditions and customer requirements. The technical parameters will be alternated relevant to the modifications.
3. Garware-Wall Ropes Ltd. reserves the right to change the specifications before prior notice.

Regd. Off & Factory:

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