

Envirogrid® is a three dimensional cellular confinement system that provides confinement and reinforcement to granular material. Therefore it can be used for load support, erosion control, slope protection and for retaining wall construction. The Envirogrid® sections are manufactured from 58 strips of HDPE, resulting in a section length of 29 cells. Each strip is the approved width and 142 inches (3.6m) in length.

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| MATERIAL PROPERTIES                       | TEST METHOD | UNIT           | TEST VALUE                  |  |  |
|---|-------------|----------------|-----------------------------|--|--|
| Polymer Density                           | ASTM D 1505 | lb/ft³ (g/cm³) | 58.4 - 60.2 (0.935 - 0.965) |  |  |
| Environmental Stress Crack Resistance     | ASTM D 5397 | hours          | >400                        |  |  |
| Environmental Stress Crack Resistance     | ASTM D 1693 | hours          | 6000                        |  |  |
| Carbon Black Content                      | ASTM D 1603 | % by weight    | 1.5% minimum                |  |  |
| Nominal Sheet Thickness¹ before texturing | ASTM D 5199 | mil (mm)       | 50 (1.27) -5%,+10%          |  |  |
| Nominal Sheet Thickness¹after texturing   | ASTM D 5199 | mil (mm)       | 60 (1.52) -5%,+10%          |  |  |

<sup>\*</sup>Polyethylene strip shall be textured with a multitude of rhomboidal (diamond shape) indentations. The rhomboidal indentations shall have a surface density of 140 to 200 per in<sup>2</sup> (22 to 31 per cm<sup>2</sup>).

<sup>&</sup>lt;sup>1</sup> The Nominal Sheet Thickness is an average thickness of the sheet, taken from the mean of 10 readings.

| Product | Nominal-Expanded Cell<br>Size (width x length)<br>in (mm) | Nominal-Expanded<br>Cell Area<br>in <sup>2</sup> (cm <sup>2</sup> ) | Nominal-Expanded<br>Section (width x length)<br>ft (m) | Nominal-Expanded Section Area ft² (m²) | Minimum-Expanded<br>Section (width x length)<br>ft (m) | Maximum-Expanded Section (width x length) ft (m) | Cell<br>Depth<br>in (mm) | Seam Peel<br>Strength lbf<br>(N) | Precent Cell Wall<br>Open Area<br>(%) | Seam Hang Strength                                  |
|---------|---|---|--|--|--|--|--------------------------|----------------------------------|---------------------------------------|---|
| EGA20   |   |   |  |  |  |  | 3 (75)                   | 240 (1060)                       | 16 ± 1%                               |   |
|         | 10.2 x 8.8  | 44.8  | 8.4 x 21.4   | 180                                    | 7.6 x 19.4   | 9.2 x 23.3                                       | 4 (100)                  | 320 (1420)                       | 11 ± 1%                               | A 4 in (102mm) weld                                 |
|         | (259 x 224)   | (289)   | (2.56 x 6.52)  | (16.7)                                 | (2.3 x 5.9)  | (9.2 x 23.3)                                     | 6 (150)                  | 480 (2130)                       | 16 ± 1%                               | joint supporting a load<br>of 160 lbs (72.5 kg) for |
|         |   |   |  |  |  |  | 8 (200)                  | 640 (2840)                       | 11 ± 1%                               | 30 days minimum or a 4                              |
| EGA30   |   |   |  |  |  |  | 3 (75)                   | 240 (1060)                       | 16 ± 1%                               | in (102mm) weld joint<br>supporting a load of 160   |
|         | 12.6 x 11.3   | 71.3  | 8.4 x 27.4   | 230                                    | 7.6 x 24.8   | 9.2 x 30.0                                       | 4 (100)                  | 320 (1420)                       | 11 ± 1%                               |   |
|         | (320 x 287)   | (460)   | (2.56 x 8.35)  | (21.4)                                 | (2.3 x 7.6)  | (9.2 x 9.1)                                      | 6 (150)                  | 480 (2130)                       | 16 ± 1%                               | lbs (72.5 kg) for 7 days<br>minimum while           |
|         |   |   |  |  |  |  | 8 (200)                  | 640 (2840)                       | 11 ± 1%                               | undergoing temperature                              |
| EGA40   |   |   |  |  |  |  | 3 (75)                   | 240 (1060)                       | 16 ± 1%                               | change from 74°F (23°C)                             |
|         | 20 x 18.7   | 187   | 8.4 x 45   | 378                                    | 7.6 x 40.9   | 9.2 x 44   | 4 (100)                  | 320 (1420)                       | 11 ± 1%                               | to 130°F (54°C) on a 1                              |
|         | (508 x 475)   | (1206)  | (2.56 x 13.72)   | (35.14)                                | (2.3 x 12.5)   | (9.2 x 49.7)                                     | 6 (150)                  | 480 (2130)                       | 16 ± 1%                               | hour cycle.   |
|         |   |   |  |  |  |  | 8 (200)                  | 640 (2840)                       | 11 ± 1%                               |   |