



Stabilizing an unstable world!

PRS-NEOWEB™ - CATEGORY **D** GEOCELLS (Cellular Confinement System) Specifications

SYSTEM PHYSICAL PROPERTIES (±5%)			
PROPERTIES	DESCRIPTION		
Material	Neoloy® polymeric nano-composite alloy (Composite alloy of polyester/polyamide nano-fibers dispersed in a polyethylene matrix)		
Coefficient of Soil-Cell Friction Efficiency	0.95	ASTM D5321	
Cell Wall Surface Texture	Textured and perforated for internal friction efficiency		
Cell Wall Height	50, 75, 100, 120, 150, 200 mm (2, 3, 4, 4.7, 6, 8 in)		
Distance between Weld Seams	330, 356, 445, 660, 712 mm (13, 14, 17.5, 26, 28 in)		
Traceability	Each section marked for full detailed traceability		
DIMENSIONAL STABILITY (±5%)			
DESCRIPTION	VALUE	UNITS	TEST METHOD
Cell Dimensional Stability by Coefficient of Thermal Expansion (CTE)	≤ 135	ppm/1°C	ISO 11359-2 (TMA) ASTM E831
SEAM WELD PROPERTIES (±7%)			
Seam Weld Strength – Weld Splitting	18 (minimum value)	kN/m (lb/ft)	ISO-13426-1 Part 1 Method C (1)
<i>(1) Adjusted to simulate optimum open cell size</i>			
TENSILE PROPERTIES (±7%)			
Material Strength at Yield	22	MPa	ASTM D638, ISO 527
Strength at Yield – non-perforated (Wide-width)	25	kN/m	ISO 10319 (2)
Strength at Yield – perforated (Wide-width)	18	kN/m	ISO 10319 (2)
<i>(2) Standard ISO 10319 test modified to achieve more accurate results by using more representative test sample size; strip is cut adjacent to 2 seams and clamped so distance between clamps is 1/2 of cell height; test direction is perpendicular to seams. Test sample measured at strain rate 100 mm (3 in) /min at 23°C (73°F). Test of perforated tensile strength is conducted on the sample area with the densest perforations.</i>			
PHOTOCHEMICAL & OXIDATION DURABILITY			
Resistance to UV Degradation (UV and Oxidation Resistance) (3) <i>(3) Effective design life at least 60 years</i>	≥ 400	Minutes	ASTM D5885 (HPOIT @ 150°C) Testing per GRI GM13
LONG-TERM PLASTIC DEFORMATION (±10%)			
Measured Plastic Deformation by Accelerated Method Step 1 at 44°C (111°F) Step 2 at 51°C (124°F) Step 3 at 58°C (136°F) Step 4 at 65°C (149°F) <i>(4) At load of 6.6 kN/m (452 lb/ft)</i>	≤ 0.5 ≤ 0.6 ≤ 0.9 ≤ 1.0	% Deformation	ASTM D-6992 (SIM) (4)
PERFORMANCE AT VARYING TEMPERATURES			
Flexural Storage Modulus at sample elevated temperature: +30° C (86°F) +45° C (113°F) +60° C (140°F)	> 800 > 700 > 650	MPa	ISO 6721-1 ASTM E2254 (DMA)
Brittle Temperature:	≤ Minus 70 (-94)	°C (°F)	



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Data Sheet

PRODUCT PART NO.							
Example: PRS- Neoweb-445- 106-76-P-G-D							
PRS-	Neoweb-	50- (2)	75- (3)	up to 106-	P- X-	G-	D
		330- (13)	100- (4)				
		356- (14)	120- (4.7)				
		445- (17.5)	150- (6)				
		660- (26)	200- (8)				
		712- (28)					
	Weld Spacing Distance Mm (in)	Cell Height mm (in)	No. of Strips / Section	P-Perforated X-Non-perforated	Color G-Gray	Category	

(1) No. of Strips – customized by project from 4 to 106 strips; different heights available upon special order

(2) Perforations – from ~6-22% of cell wall area of variable dimensions and shapes

(3) Colors – additional colors available upon request

CELL & SECTION NOMINAL DIMENSIONS

PROPERTIES	NOMINAL	DESCRIPTION	DESCRIPTION	DESCRIPTION	DESCRIPTION	DESCRIPTION
Distance between Weld Seams	±2.5%	330 mm (13 in)	356 mm (14 in)	445 mm (17.5 in)	660 mm (26 in)	712 mm (28 in)
Cell Wall Heights	±5%	50, 75, 100, 120, 150, 200 mm (2, 3, 4, 4.7, 6, 8 in)				
Cell Dimension (Optimal opening)	±3%	245 x 210 mm (9.65 x 8.27 in)	260 x 224 mm (10.24 x 8.82 in)	340 x 290 mm (13.39 x 11.42 in)	490 x 420 mm (19.29 x 16.53 in)	520 x 448 mm (20.40 x 17.64 in)
No. of Cells/m ²	±3%	39 (32)	35 (27)	22 (18)	10 (8)	8 (6)
Maximum Section Size ⁽⁴⁾ (Expanded)	±3% max.	2.5 x 12.6 m (8.20 x 38.71 ft)	2.7 x 13.4 m (8.86 x 39.71 ft)	2.8 x 17.4 m (9.19 x 51.81 ft)	2.5 x 25.2 m (8.20 x 77.43 ft)	2.8 x 27.0 m (9.19 x 79.40 ft)
Maximum Section Area (Expanded)	±3%	31.5 m ² (339.0 ft ²)	36.3 m ² (390.7 ft ²)	48.0 m ² (516.7 ft ²)	63.0 m ² (678.1 ft ²)	75.3 m ² (810.5 ft ²)

(4) Section Sizes – different size sections available upon special order

SHIPPING DATA

The following data will be made available per order:

Neoweb Series + Configuration: <ul style="list-style-type: none"> Height (mm/in) No. of strips per section 	Section – Weight <ul style="list-style-type: none"> Weight per section (kg/lb) 	Pallet : <ul style="list-style-type: none"> No. of sections Area per pallet (m²/ft²) Gross weight (kg/lb) 	Quantity (m²/ft²): <ul style="list-style-type: none"> Per 20' Container Per 40' Container
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CERTIFICATIONS and ACCREDITATIONS

DESCRIPTION	ISSUED BY	CERTIFICATE NUMBER
Quality Management System Certification – ISO-9001:2008	Ronet (ANAB accredited)	Q3600
Environmental Management System Certification – ISO-14001:2004	Ronet (ANAB accredited)	E3600
Occupational Health & Safety Management Certification – ISO-18000	Ronet	O3600
EC Certificate for Factory Product Control	ITB, Building Research Institute, EU	1488-CPR-0099/Z
Accreditation of New Materials and Techniques	Indian Roads Congress	IRC-24(12)2009(ACC-30)
GOST R – Mark of Conformity - Russian Standards Institute	Federal Agency for Technical Regulation, Russia	0759575