

# LBX 4040 BIAXIAL GEOGRID (PP)

Design and build with confidence; we empower you to achieve cost-effective, proven, engineered solutions. Fueled by an innovative spirit, our industry-leading technology solves the toughest soil stabilization, earth reinforcement, and site development challenges.

The reinforcing action of LBX Geogrid products lies mainly in increasing the shearing resistance within a soil by the process of interlocking between the square ribs and the soil.

March 2025		LBX 4040 Biaxial Geogrid (PP)	
Material Properties	Rev	Test Method	LBX 4040 <sup>1</sup>
	Aperture Size Typical <sup>2</sup>	Measured	39 mm x 39 mm
	Wide Width Tensile <sup>3,4</sup> MD/CD	ASTM D6637	40 kN/m / 40 kN/m
	Minimum Rib Thickness <sup>2</sup>	Measured	2.3 mm / 1.5 mm
	Width of Rib <sup>2</sup>	Measured	3.0 mm / 3.0 mm
	Strength @ 2% Strain <sup>3,4</sup> MD/CD	ASTM D6637	18 kN/m / 18 kN/m
	Strength @ 5% Strain <sup>3,4</sup> MD/CD	ASTM D6637	32 kN/m / 32 kN/m
	Junction Efficiency <sup>12</sup>	GRI GG2	> 95 %
	Flexural Rigidity <sup>10</sup>	ASTM D7748	4,800,000 mg-cm
	Aperture Stability <sup>7</sup>	ASTM D7864	0.85 m-N/deg
	Resistance to UV Degradation <sup>8,9</sup>		100%
	Roll Size		3.95 m x 50 m
	Roll Weight Typical		98 kg

1. Carbon black content is 2% for high UV Resistance

2. Geometric Properties are nominal values and may vary

3. Mechanical Properties are based on Manufacturers Laboratory testing @ 21 +/- 1 Degree C

4. Unless indicated otherwise, values shown are typical roll values

7. Resistance to in plane rotational movement of 20 kg-cm

8. 500 Hours of Exposure

9. Expressed as a percentage of Ultimate Tensile Strength

10. Using specimens 2 ribs wide with ribs transverse to specimen cut flush with the exterior edges of the ribs in the direction of the specimen

11. Layfield reserves the right to change this product specification at any time. The user is responsible to verify use/reference of the latest Product Data Sheet.

12. Load transfer capability determined in accordance with ASTM D7737-11

## INSTALLATION

The subgrade should be cleared of all vegetation and proof rolled. On very soft ground or muskeg, cut vegetation flush with the ground and remove all woody bushes, shrubs and large rocks. The surface of the subgrade should be levelled, and depressions or humps greater than 15 cm (6 in) should be graded out. The biaxial geogrid shall be placed directly on the prepared subgrade. It should be rolled out flat and tight with no folds. Adjacent rolls should be overlapped as a function of subgrade strength, allowing for product continuity once backfilled. For CBR 3.0 and above, 20 cm (8 in) to 30 cm (12 in); for CBR 1.0 to 3.0, 45 cm (18 in) to 90 cm (36 in) for CBR 1.0 or lower, please contact one of our technical specialists for installation and application recommendations. Care should be taken to ensure that the overlaps are maintained during fill placement. Should a mechanical joint be required, then please consult the manufacturer for further details or refer to and follow project-specific requirements in the plans, specifications, and tender documents.

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