

MiraCell® CELLULAR CONFINEMENT SYSTEM

DESCRIPTION:

MiraCell® is a perforated cellular confinement system engineered from HDPE sections for maximum performance. MiraCell® is available in a number of depth and cell opening combinations. MiraCell® is supplied in a folded configuration that minimises transport costs to site yet can be readily expanded on site for very quick installation. MiraCell® has been perforated to ensure that each cell does not become water saturated during use.

APPLICATIONS:

MiraCell® provides advantages in the following applications.

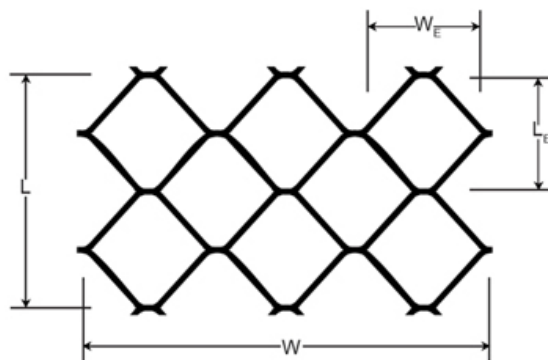
Slope Protection: The cellular configuration allows for effective protection and resistance to downward migration of slope materials due to hydraulic flow events. The cell is very effective at retaining soils within the cell structure in applications of cut slopes and where the natural cut materials cannot support vegetated slopes. Imported soils placed within the cell create an improved environment for vegetative growth and as such soils are confined, there will be increased resistance against possible movement down the slope.

Channel Protection: The cellular configuration improves the hydraulic performance of conventional protection materials such as placed aggregate. By confinement of the aggregate within the cell an effective increase in the shear resistance of the placed aggregate is obtained. Channels that use MiraCell are capable of larger flow events.

Base Stabilisation: The cellular confinement of base materials in a roading application increases resistance to lateral displacement of conventional road base materials. The use of MiraCell® reduces rutting of the pavement and can increase pavement life.

PRODUCT DIMENSIONS

Dimensions			Small Cell MCSP	Medium Cell MCMP	Large CELL MCLP
• Expanded Cell Size (widthxlength)	-	mm	259 x 224	320 x 287	508 x 475
• Expanded Panel Size (widthxlength)	-	m	2.56 x 6.52	2.56 x 8.35	2.56 x 13.72
• Expanded Panel Area	-	m ²	16.7 ± 1%	21.4 ± 1%	35.12 ± 1%



Product	Expanded Cell Size (widthxlength) mm	Expanded Panel Size (widthxlength) m	Expanded Panel Area m ²
MCSP -75-735	259 x 224	2.56 X 6.52	16.7 ±1%
MCMP -75-744	320 X 287	2.56 X 8.35	21.4 ±1%
MCLP -75-771	508 X 475	2.56 X 13.72	35.12 ±1%
MCSP -100-1035	259 X 224	2.56 X 6.52	16.7 ±1%
MCMP-100-1044	320 X 287	2.56 X 8.35	21.4 ±1%
MCLP -100-1071	508 X 475	2.56 X 13.72	35.12 ±1%
MCSP-150-1535	259 X 224	2.56 X 6.52	16.7 ±1%
MCMP- 150-1544	320 X 287	2.56 X 8.35	21.4 ±1%
MCLP-150-1571	508 X 475	2.56 X 13.72	35.12 ±1%
MCSP-200-2035	259 X 224	2.56 X 6.52	16.7 ±1%
MCMP-200-2044	320 X 287	2.56 X 8.35	21.4 ±1%
MCMP-200-2071	508 X 475	2.56 X 13.72	35.12 ±1%

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TYPICAL PROPERTIES

75mm Cell Depth

Index Properties	Test Method	Unit	MCSP-75-735	MCMP-75-744	MCLP-75-771
• Polymer	-	-	HDPE	HDPE	HDPE
• Carbon Black content	ASTM D 1603	%	≥1.5	≥1.5	≥1.5
• Density	ASTM D 1505	g/cm3	0.935-0.965	0.935-0.965	0.935-0.965
• Sheet Thickness	ASTM D 5199	mm	1.25	1.25	1.25
• Seam Peel Strength	-	N	1060	1060	1060
• Weld Spacing	-	mm	356	445	711
• Cell Depth	-	mm	75	75	75
• Environmental Stress Crack Resistance	-	hours	>3000	>3000	>3000

100mm Cell Depth

Index Properties	Test Method	Unit	MCSP-100-1035	MCMP-100-1044	MCLP-100-1071
• Polymer	-	-	HDPE	HDPE	HDPE
• Carbon Black content	ASTM D 1603	%	≥1.5	≥1.5	≥1.5
• Density	ASTM D 1505	g/cm3	≥0.94	≥0.94	≥0.94
• Sheet Thickness	ASTM D 5199	mm	0.935-0.965	0.935-0.965	0.935-0.965
• Seam Peel Strength	-	N	1.25	1.25	1.25
• Weld Spacing	-	mm	356	445	711
• Cell Depth	-	mm	100	100	100
• Environmental Stress Crack Resistance	-	hours	>3000	>3000	>3000

150mm Cell Depth

Index Properties	Test Method	Unit	MCSP-150-1535	MCMP-150-1544	MCLP-150-1571
• Polymer	-	-	HDPE	HDPE	HDPE
• Carbon Black content	ASTM D 1603	%	≥1.5	≥1.5	≥1.5
• Density	ASTM D 1505	g/cm3	0.935-0.965	0.935-0.965	0.935-0.965
• Sheet Thickness	ASTM D 5199	mm	1.25	1.25	1.25
• Seam Peel Strength	-	N	2130	2130	2130
• Weld Spacing	-	mm	356	445	711
• Cell Depth	-	mm	150	150	150
• Environmental Stress Crack Resistance	-	hours	>3000	>3000	>3000

200mm Cell Depth

Index Properties	Test Method	Unit	MCSP-200-2035	MCMP-200-2044	MCLP-200-2071
• Polymer	-	-	HDPE	HDPE	HDPE
• Carbon Black content	ASTM D 1603	%	≥1.5	≥1.5	≥1.5
• Density	ASTM D 1505	g/cm3	0.935-0.965	0.935-0.965	0.935-0.965
• Sheet Thickness	ASTM D 5199	mm	1.25	1.25	1.25
• Seam Peel Strength	-	N	2840	2840	2840
• Weld Spacing	-	mm	356	445	711
• Cell Depth	-	mm	200	200	200
• Environmental Stress Crack Resistance	-	hours	>3000	>3000	>3000

MiraCell® is a registered trademark of Global Synthetics Pty Ltd.

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