

ITL GC40T | Technical Specifications

GC40T standard sections are manufactured from 58 strips of HDPE, resulting in a section length of 29 cells and 5 cells wide. Each strip is the appropriate width and 144 inches (3.7 m) in length. Weld spacing is 28.0 in $\pm$ 0.12 in. (711 $\pm$ 3mm). Cell density is 8.3 cells per meter squared. Cell walls are textured and if perforations are required 13% $\pm$ 3% of the cell wall is removed. Polyethylene strip shall be textured and with a multitude of rhomboidal (diamond shape) indentations. The rhomboidal indentations shall have a surface density of 22 to 31 per cm² (140 to 200 per in²).

Color: Standard strips are black. (Tan, Green, other colors with no heavy metal content available upon request)
Stabilizer: Hindered amine light stabilizer (HALS) 2.0% by weight of carrier

MATERIAL PROPERTIES

Description	Test Method	Units	Test Value
> Polymer Density	ASTM D1505	lb/ft ³ (g/cm ³)	58.4-60.2 (0.935-0.965)
> Environmental Stress Crack Resistance	ASTM D5397	hours	>400
	ASTM D1693	hours	6,000
> Carbon Black Content	ASTM D1603	% by weight	1.5% - 2.0%
> Nominal Sheet Thickness before texturing	ASTM D5199	mil (mm)	50 (1.27) -5%, +10%
> Nominal Sheet Thickness after texturing	ASTM D5199	mil (mm)	60 (1.52) -5%, +10
> Resistance to Oxidation ²	EN ISO 13438	years	$\geq$ 50
> Resistance to Weathering ³	EN 12224	%	100

PHYSICAL PROPERTIES

Description	Unit	Test Value
> Nominal - Expanded Cell Size (width x length)	in (mm)	20 (508) x 18.7 (475)
> Nominal - Expanded Cell Area	in ² (cm ²)	187 (1206)
> Nominal - Expanded Panel Size (width x length)	ft (m)	8.4 (2.56) x 45 (13.72)
> Nominal - Expanded Panel Area	ft ² (m ²)	378 (35.12)
> Internal Junction Efficiency ¹	%	$\geq$ 100
> Mechanical Junction Efficiency	%	$\geq$ 100
> Peak Friction Angle Ration (δ/ϕ) granular material	unitless	0.95

> Cell Depth	in (mm)	2 (50)	3 (75)	4 (100)	6 (150)	8 (200)
> Minimum Seam Peel Strength	lbf (N)	160 (710)	240 (1065)	320 (1420)	480 (2130)	640 (2840)
> Minimum Seam Hang Strength	A 4 in (102mm) weld joint supporting a load of 160 lbs (72.5 kg) for 30 days minimum or a 4 in (102mm) weld joint supporting a load of 160 lbs (72.5 kg) for 7 days minimum while undergoing temperature change from 74°F (23°C) to 130°F (54°C) on a 1 hour cycle.					

Notes:

- 1) Value is a percentage of junction performance (EN ISO 13426-1) to perforated strip performance (EN ISO 10319).
- 2) Predicted to be durable for a minimum of 50 years in natural soil with a pH between 4 and 9 and at a soil temperature < 25°C.
- 3) 100% of original tensile strength retained following exposure to intense UV radiation and accelerated weathering in accordance with EN 12224.

Disclaimer: To the best of our knowledge, unless otherwise stated, these are typical property values and are intended as guides only, not as specification limits. Chemical resistance, odor transmission, longevity, as well as other performance criteria, are not implied or given, and actual testing must be performed for applicability in specific applications and/or conditions.

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