

January 26, 2024

California Assembly Bill 1305 Disclosure

Corning Incorporated, along with its direct and indirect wholly owned subsidiaries (“Corning”), has not made or sold or purchased and does not otherwise use any voluntary carbon offsets as defined in California's Voluntary Carbon Market Disclosures Act (“Assembly Bill 1305”).

Corning makes certain limited greenhouse gas emissions marketing claims in connection with certain products. The products, the related GHG claim, and the nature of the evidence supporting the claim can be found on the following sheets.

For information regarding Corning’s progress toward its greenhouse gas emissions goals and other sustainability goals, please see our Corporate Sustainability Report at <https://www.corning.com/worldwide/en/sustainability.html>.

MAP	Product family	Part number	Claim language	Evidence
MCE	Gorilla Glass	General statement	Thin, durable glass resulting in up to 50% reduction of CO2e (0.7mm versus 0.33mm)	Assumed calculation that 50% reduction in thickness also equals 50% reduction in CO2e
Auto	AGS	ColdForm	ColdForm™ Technology's global warming potential is about 25% less than traditional hot-forming technology	Life Cycle Assessment (LCA) with 3 rd party panel review
COC	EDGE™ Distribution System	Various	With this pre-engineered data center solution, operators can redesign their physical networks, from the leaf switches to the top-of-rack switches, minimizing the use of metal and plastic and reducing the carbon footprint of the optical links. In addition, the solution consolidates dozens of patch cords into one assembly, minimizing the use of cable trays and product packaging. Together, the consolidation of cable and the minimizing of materials and packaging can provide up to a 55% reduction in carbon footprint compared to legacy solutions.	Cradle-to-Grave LCA study and report according to ISO 14040 and 14044 with 3rd party validation statement. Study and report was executed by external consultant.
		MiniXtend® HD cables, 12 –72 fibers	MiniXtend® XD cables and 12-72 fiber count options of MiniXtend® HD cables are designed for high density applications. These cables have a smaller outer diameter that allows for more efficient use of materials in manufacturing and higher fiber counts per duct, resulting in reduced carbon footprint. A Life Cycle Assessment conducted by Corning in accordance with ISO 14040 and 14044 standards and reviewed by an independent 3rd party showed up to a 20% decreased carbon footprint compared with legacy cables.	Cradle-to-Grave LCA study and report according to ISO 14040 and 14044 with 3rd party validation statement. Study and report was executed by external consultant.
COC	MiniXtend® HD and XD Cable Options		MiniXtend HD cables deliver a 17% reduction in cable outer diameter compared to standard MiniXtend cables, increasing fibre density by 44% and enabling up to 72 fibres in a 6 mm ID microduct. The carbon footprint of MiniXtend HD cables is up to 20% lower compared to that of standard MiniXtend cables.	
		MiniXtend® XD cables, 192 and 288 fibers	The MiniXtend XD cables deliver a 15% reduction in cable outer diameter, increasing headroom in 10 and 12mm ID ducts, as well as enabling up to 192 fibres in 8 mm ID and 288 fibres in 10 mm ID microducts. The carbon footprint of MiniXtend XD cables is up to 12% lower compared to that of MiniXtend HD cables.	

COC	MiniXtend® cable with Flow Ribbon Technology, 288F	Various	<p>MiniXtend® cable with Flow Ribbon Technology contains Corning® SMF-28® Contour opti</p> <p>A Life Cycle Assessment conducted by Corning in accordance with ISO 14040 and 14044 standards and reviewed by an independent 3rd party showed a 60% lower carbon footprint when comparing 288-fiber indoor/outdoor MiniXtend® cable with Flow Ribbon Technology with comparable 288-fiber FREEDM® UltraRibbon™ cable.</p>	<p>Cradle-to-Grave LCA study and report according to ISO 14040 and 14044 with 3rd party validation statement. Study and report was executed by Corning Optical Communications.</p>
COC	EDGE™ Rapid Connect	Various	<p>EDGE™ Rapid Connect technology is a line of solutions that help hyperscale operators interconnect multiple data centers up to 70% faster than existing solutions by eliminating field splicing and multiple cable pulls. It also provides up to a 25% carbon-footprint reduction. More than five million fibers have been terminated with EDGE Rapid Connect technology since its introduction in 2021. The newest solutions include pre-terminated trunks rated for both indoor and outdoor use – creating enhanced deployment flexibility – and a “consolidator cabinet” that allows operators to add density while efficiently using limited floor space.</p>	<p>Cradle-to-Grave LCA study and report according to ISO 14040 and 14044 with 3rd party validation statement. Study and report was executed by external consultant.</p>
COC	144F ALTOS® HD Cable	Various	<p>The new high-density ALTOS® HD cable with binderless FastAccess® technology features 24 fibers per buffer tube in a compact yet flexible design, offering reduced outer diameter and weight. The reduced size enables more efficient use of materials, packaging, and transportations, resulting in a lower carbon footprint compared to comparable legacy cables. The carbon footprint of 144F ALTOS® HD cable is 30% lower than 144F ALTOS® Loose Tube, Gel-Free Cable.</p>	<p>Cradle-to-Grave LCA study and report according to ISO 14040 and 14044 with 3rd party validation statement. Study and report was executed by Corning Optical Communications.</p>

COC	Reel in a Box, ActiFi® Composite Cable, TightBuffered, Indoor, Plenum 2 F, 2 Cu Conductor, 20AWG, 500 ft.	002Z48-21Z31MB1	<p>The differences in Table 1 were analyzed to highlight their impact to GWP using Corning’s LCA study and public EPDs for cables and cable trays (EPD OBO Bettermann, 2019). The results of the composite (4.7 MT-CO2e) and Cat.6A Plenum cabling comparison (41.7 MT-CO2e), indicated that the embodied carbon was reduced by more than 88%, and with cable trays, by 80% (10.0 MT-CO2e and 52.2 MT-CO2e respectively).</p>	<p>LCA Report with 3rd party validation statement additional evidence referenced in white paper including publically available EPDs</p>
COC	Fiber to the edge (FTTE)	Full architecture, various	<p>The environmental advantage of integrating Corning’s developed composite cable solution and FTTE network design presents itself as a lower-carbon, climate-resilient development solution in building design, amounting to a 6.8% reduction in whole-building life cycle carbon over a 30-year life</p>	<p>Cradle-to-Grave LCA study and report according to ISO 14040 and 14044 with 3rd party validation statement. Study and report was executed by external consultant. Comparison to Copper Cat6 cable was done based on EPD. Full study is documented in white paper referenced.</p>

COC **Optical Fiber** Various

Optical fiber has demonstrated superior capabilities over all other alternatives, offering massive capacity. Compared to copper-based networks, optical fiber reduces energy consumption by up to 54%, reduces operational costs due to lower maintenance requirements, and offers high-performance and high reliability that lasts a lifetime. Less often talked about is the embodied carbon of optical fiber, which Corning quantified through a life cycle assessment.

Although different configurations will vary the transmission capacity of a network, we can simplify the analysis by comparing one optical fiber to one copper pair. Corning calculated the carbon footprint of one optical fiber to be 2.3 kg CO₂eq/km while two 0.5mm copper wires are estimated to have a carbon footprint of 14 kg CO₂eq/km, 6 times the carbon footprint of fiber over the same length. The latest fiber networks for home users, however, can deliver 2,000 times higher bandwidth over 7 times longer distances for the same number of users. Based on these values, it is estimated that to achieve the same transmission capacity, over the same reach, the twisted copper pair has a carbon footprint up to 85,000 times higher than that of an optical fiber.

Optical fiber:
Cradle-to-Gate LCA study and report according to ISO 14040 and 14044 with 3rd party validation statement. Study and report was executed by third party consultant.

Comparison to copper:
Assumptions are described in white paper and were performed with the support of external consultant who is also an author in white paper.