

COMPARISON OVERVIEW

Reducing Carbon & Cost of Roofing – The OneDek Advantage

U.S. - California, Georgia, Texas, Washington D.C., Minnesota



ONEDEK®
INSULATED ROOF DECK



KEY FINDINGS

Drawing on modeled data across multiple U.S. regions and climates, the analysis shows clear reductions in global warming potential (GWP) and raw material mass. The findings below summarize the most significant sustainability outcomes.

OneDek® outperformed typical roofing systems in embodied carbon across all modeled locations.

- In Minnesota and Washington, D.C., OneDek achieved a 21% reduction in GWP (kgCO₂e/SF).
- In Georgia, California, and Texas, OneDek achieved a 19% reduction in GWP (kgCO₂e/SF).

APPLICABILITY ACROSS DIVERSE REGIONS

OneDek maintained its carbon advantage across hot-humid, mixed-humid, and cold climates, demonstrating a resilient, low-impact design that performs consistently nationwide and reduces design and procurement complexity.

LOWER MATERIAL MASS

The system used over 50% fewer materials per square foot in every region, reducing environmental impacts and simplifying construction, labor, and waste management.

LEED CREDIT CONTRIBUTIONS

OneDek's carbon profile supports major LEED v4/v4.1 and v5 credits and aligns with ESG frameworks focused on transparency and life-cycle performance, helping both projects and organizations meet decarbonization goals.

RESULTS BY REGION

Regional, material, and life-cycle analyses show why scenarios performed differently, and across every region OneDek outperformed the Typical assembly in both embodied carbon (kgCO₂e/SF) and material intensity (kg/SF).

- In GA, CA, and TX, OneDek delivered 24% lower embodied carbon and 55% less material than the Typical scenario.
- In DC and MN, OneDek delivered 27% lower embodied carbon and 51% less material.

FIGURE 1. COMPARISON OF ONEDEK VS TYPICAL ASSEMBLY EMBODIED CARBON, BY REGION

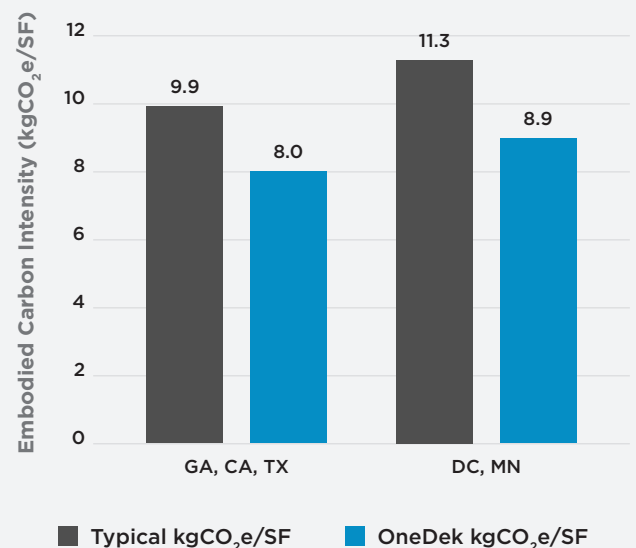


TABLE 2. EMBODIED CARBON INTENSITY AND MATERIAL INTENSITY BY REGION

Region	Embodied Carbon Intensity (kgCO ₂ e/SF)			Material Intensity (kg mass/SF)		
	Typical	OneDek	% Reduction	Typical	OneDek	% Reduction
GA, CA, TX	9.9	8.0	24%	5.8	2.6	55%
DC, MN	11.3	8.9	27%	6.5	3.2	51%

FIGURE 3. EMBODIED CARBON BROKEN DOWN BY MATERIAL

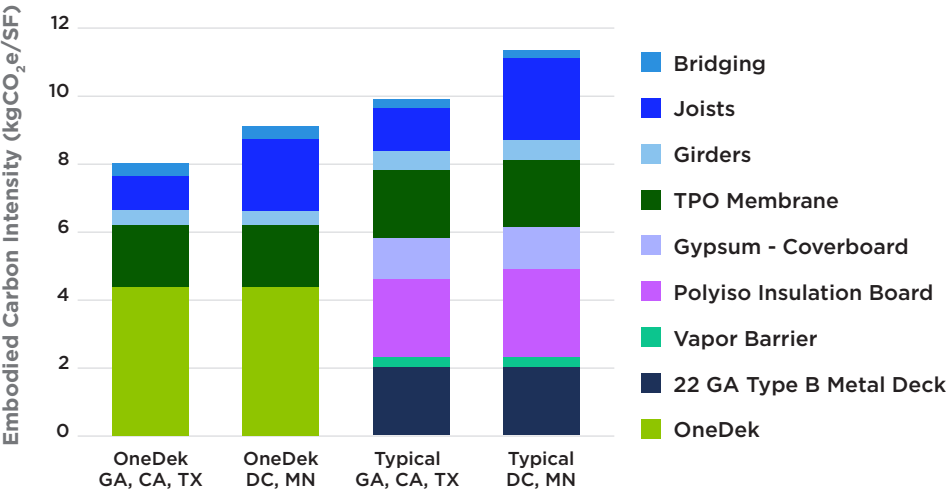
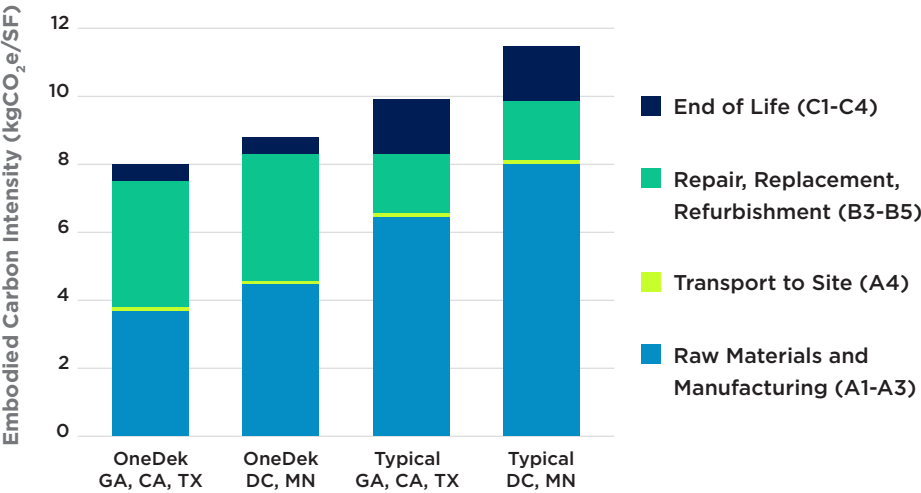


FIGURE 4. EMBODIED CARBON BROKEN DOWN BY LIFE-CYCLE STAGE



ONEDEK COST SAVINGS SUMMARY

Procurement Phase

Materials: Conventional roofs require multiple layers (insulation boards, vapor retarders, cover boards). OneDek combines structure, insulation, and air/vapor control into a single panel, reducing materials and on-site storage needs.

Labor: Simplified roof design reduces architectural and structural coordination.

Timeline: Fewer materials to source speeds up procurement.

Construction & Implementation

Materials: Panels arrive pre-assembled, reducing the need for specialized installation equipment.

Labor: Fewer trades are required; general contractors can self-perform much of the work, lowering labor costs.

Timeline: Ready-to-install panels minimize cutting and fitting, shorten the path to a watertight envelope, reduce weather risks, and streamline scheduling through a simplified four-step process.



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