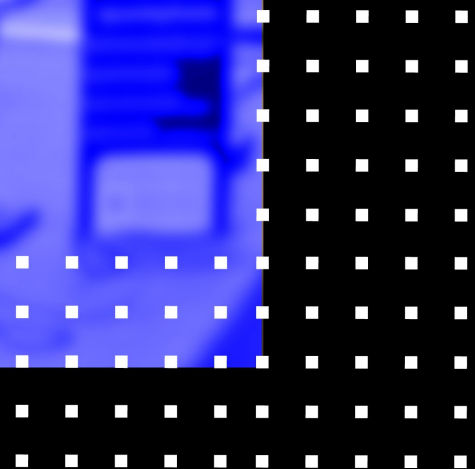


NGA GLASS CONFERENCE™

ANN ARBOR

9.29 - 10.2.2025



Industry Standards Update

Presented by



Urmilla Sowell
VP, Advocacy &
Technical Services
NGA



ASTM Updates

- ASTM F3006 – 2025: *Standard Specification for Ball Drop Impact Resistance of Laminated Architectural Flat Glazing* - updated
- ASTM F3007 – 2024: *Standard Test Method for Ball Drop Impact Resistance of Laminated Architectural Flat Glass* - updated
- ASTM F2813 – 2023: *Standard Specification for Glass Used as a Horizontal Surface in Desks and Tables* - reapproved
- ASTM WK17797: New Test Method for Standard Specification for Human Impact and Fall-through Resistance of Unit Skylights and Related Products Used on Skylight Openings – ballot open Oct 3rd



ASTM Updates

- ASTM F1233 – 2021: *Standard Test Method for Security Glazing Materials and Systems*
- ASTM F3561 – 2025: *Standard Test Method for Forced-Entry-Resistance of Fenestration Systems After Simulated Active Shooter Attack*
- ASTM F3279 – 2024: *Standard Test Method for Ballistic-Resistant Security Glazing Materials*



ASTM Updates

- ASTM WK93371: New Test Methods for Forced-Entry-Resistance After Simulated Active Shooter Attack of Glazing for Retrofit
- ASTM WK94408: New Test Method for the Evaluation of Shatter Resistant Window Using Ball Drop Impact
- ASTM WK [to be established]: Standard Practice for Bird-Friendly Glazing Design





ASTM Updates

- ASTM C1956 – 2025: *Standard Test Method for Laminated Glass Edges when in Contact with Sealants and Glazing Tapes – NGA LD103 Published!*
- ASTM C1900 – 2024: *Standard Practice for Weathering and Evaluation of Laminated Glass*
- ASTM C1172 – 2024: *Standard Specification for Laminated Architectural Flat Glass*
- ASTM C1908 – (R)2025: *Standard Test Method for Pummel Adhesion Testing of Two-ply Laminated Architectural Glass - Reapproved*
- ASTM C1914 – (R)2025: *Standard Test Method for Bake and Boil Testing of Laminated Glass – Reapproved*

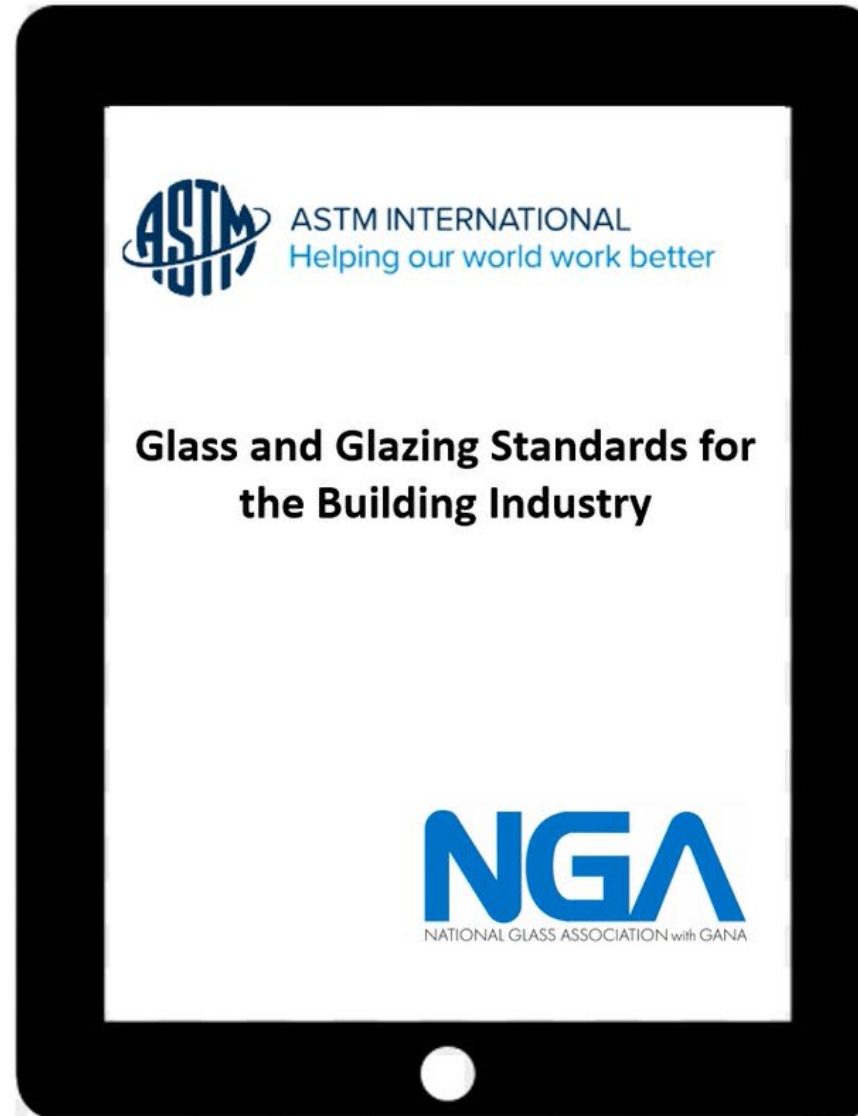


ASTM Updates

- ASTM E2353 – 2021: *Standard Test Methods for Performance of Glazing in Permanent Railing Systems, Guards and Balustrades* – ballot comments
- ASTM E2358 – 2024: *Standard Specification for Performance of Glazing in Permanent Railing Systems, Guards and Balustrades* – ballot comments
- ASTM E3401 – 2024: *Standard Practice for Design and Performance of Laminated Glass Subject to Hydrostatic Loads*
- ASTM E3491 – 2025: *Standard Practice for Determination of Laminated Glass Effective Thickness*
- ASTM WK59324: New Guide for Design of Glass Railings and Guards and Balustrades – concurrent ballot E06

www.astm.org

- Glass
- Flat glass
- Glazing
- Building sealants
- Environmental acoustics
- Visual quality
- Fenestration products



*91 key standards
across multiple ASTM volumes*



EPA GRANTS =160M

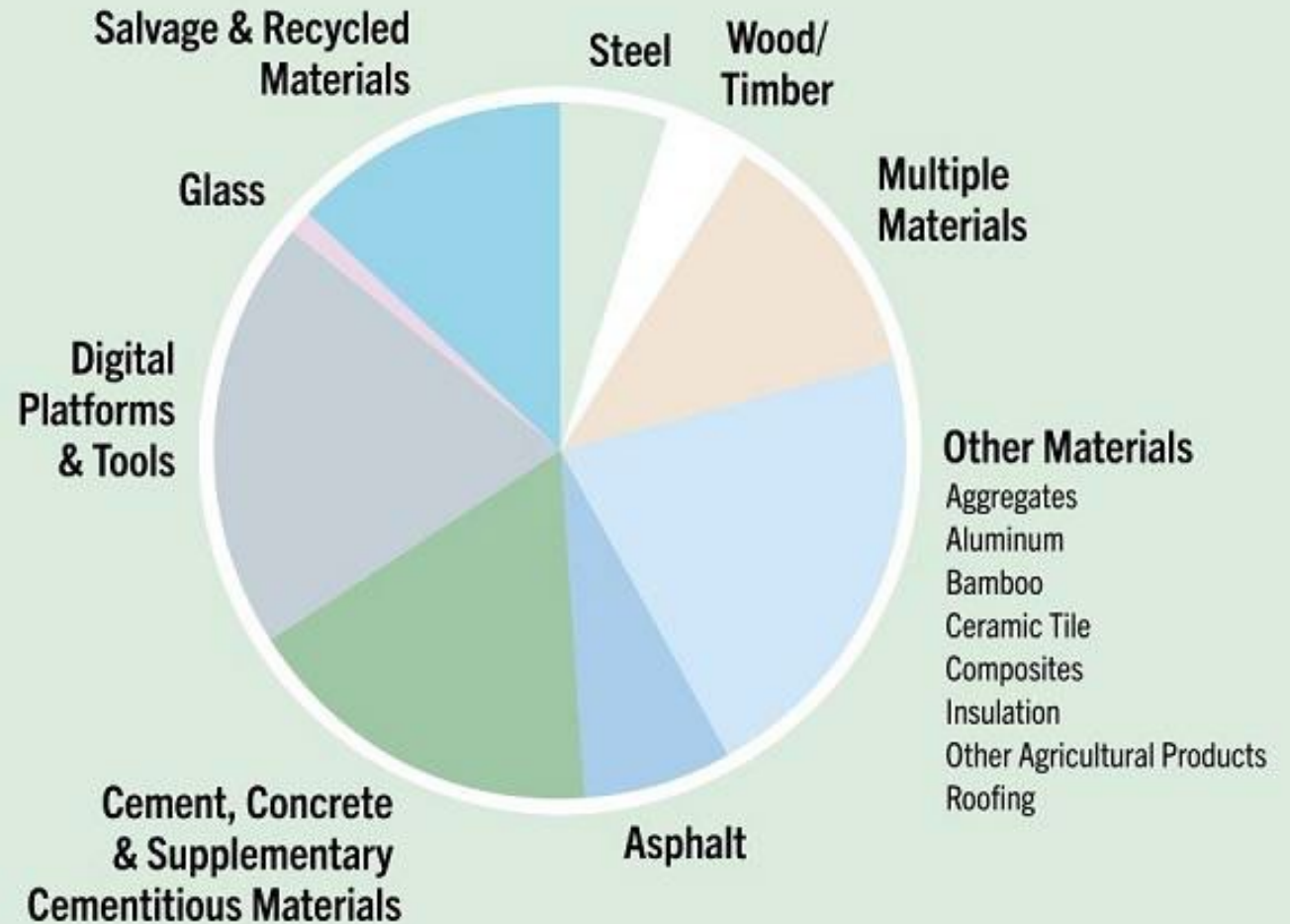
**NGA - \$2.1 million
over 5 years**

**38 grantees selected
14 material types**

**NGA is the
ONLY glass
representative**

Material & Product Categories for Grant Selections

Reducing Embodied Greenhouse Gas Emissions
for Construction Materials*



*Selections are contingent upon completion of legal and administrative requirements.

Architectural Glass EPD Development Grant

Four subprojects:

1. Primary Flat Glass LCI Data Aggregation

- Provide support to improve granularity of primary flat glass LCI data, as well as PCR update.

2. EPD Generator Tool for Processed Glass

- Develop robust generator tool capable of producing both LCA data reports and full 3rd-party reviewed EPDs for processed glass products in conformance with ISO standards.

3. EPD Development Assistance for Glass Fabricators

- Provide technical, educational, and financial assistance to glass fabricator members for EPD development.

4. End-of-life LCA data collection on architectural glass recycling

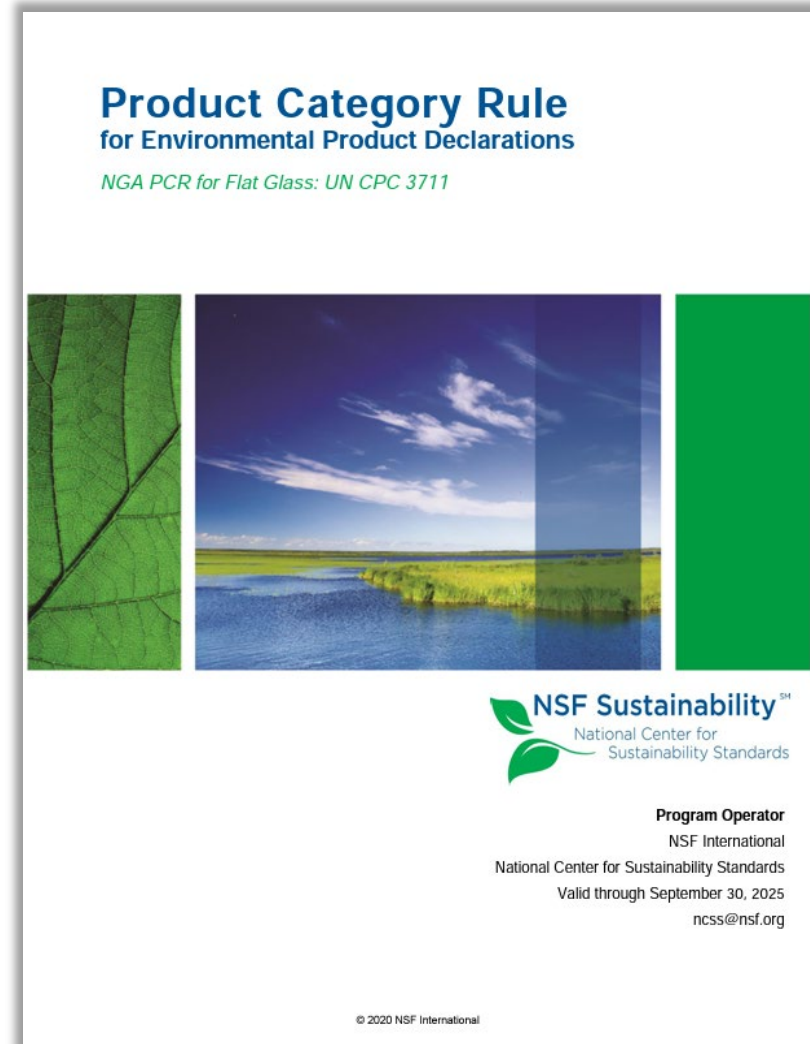
- To improve the understanding about glass end-of-life and quality of LCA part D data, quantify glass recovery rates and track end-use outcomes for recycled glass on 1-3 deconstruction projects.

EPA Grant Status – Sept 2025

- Jan 20th – Pres. Trump issued an executive order to “pause the disbursement of funds appropriated through the Inflation Reduction Act of 2022 or the Infrastructure Investment and Jobs Act” and orders a review of programs and policies for issuing grants against newly stated Trump administration policies.
- Spring 2025 – NGA 2.1M was on a DOGE but didn’t officially hear anything
- July 2025 - One Big Beautiful Bill Act (OBBB) cancelled our EPA grant

Flat Glass PCR

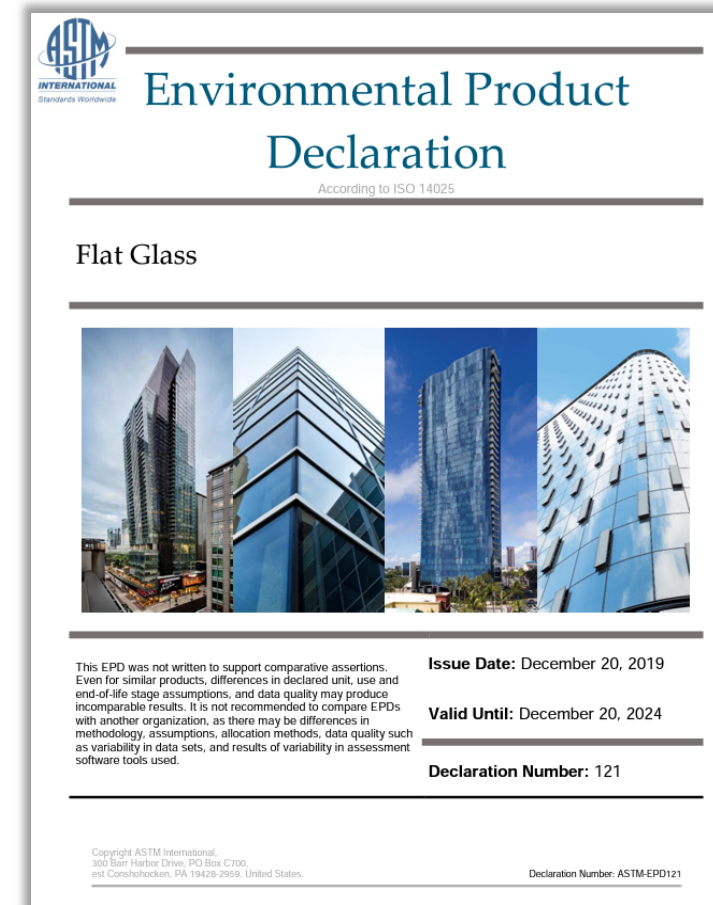
- NGA PCR for Flat Glass was published by NSF describing requirements for LCAs and EPD of flat glass
- Valid through Sept. 30, 2025



https://www.glass.org/sites/default/files/2021-10/pcr_flat_glass_2020.pdf

Flat Glass EPD: Industry Average

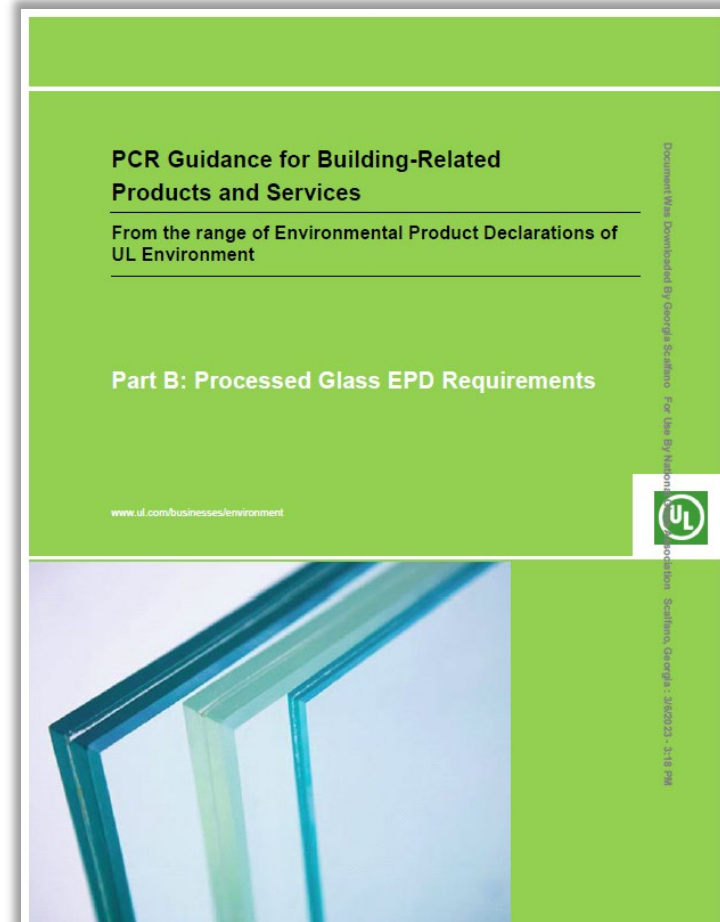
- NGA flat glass member companies (members of Forming Committee) published an industry average EPD for flat glass produced in the US in December 2019.
 - Average GWP is 1,430 kg CO₂ eq
- Valid through Dec. 20, 2024



https://www.glass.org/sites/default/files/2019-12/NGA_EP_D_2019_12_16_signed.pdf

Processed Glass PCR

- PCR Guidance for Building-Related Products and Services
Part B: Processed Glass EPD Requirements (Established Aug. 2016)
 - Original expiration date Dec. 6, 2023 extended to June 2024



<https://www.shopulstandards.com/ProductDetail.aspx?UniqueKey=35842>

Continued Demand for EPDs

- Architects' specs
- Buy Clean policies remain at state and local level
- LEED v5
- Boston Net Zero Carbon Zoning policy

- TrueNorth Collective
 - Oct 1st 4-5pm

