VINYL PRODUCTS IN CONSTRUCTION: MARKET TRENDS AND OPPORTUNITIES

Vinyltec 2019
Home Innovation Research Labs

- Founded in 1964 as wholly-owned subsidiary of NAHB
- Independent, for-profit researchers assisting development and commercialization of new building technologies
  - Engineering research & development
  - Market & field research
  - Laboratory testing
- #1 in green home building certification (NGBS)
- Building codes and standards developers
- Partners with ICC-ES to fast-track issuance of ESRs
Purpose and Outline of Presentation

1. Review of changes sweeping home construction and remodeling industries
2. Review of building materials trends in new homes and remodeling
   1. Flooring
   2. Windows & Patio Doors
   3. Siding & Exterior Finishes
   4. Exterior Trim & Fascia
   5. Decking
   6. Exterior Railing
   7. Fences & Privacy Walls
Source: NAHB / US Census
Top Trends Shaping the Building Materials Industry

- Skilled labor shortage
  - Cost of labor also increasing
  - Cycle time lengthened (from 6 months to 7 months to complete a home)
  - Industry environment favors easy-to-install and pre-finished materials
  - Conditions are right for some off-site housing solutions

- Construction materials costs increasing
  - Building products up 2 times CPI (4% in 2018)

- Lower availability of residential development property
  - Higher density suburbs (smaller and narrower lots, less privacy etc.)
  - Remodeling outlook very good—improve/expand instead of buy new

- More rigorous energy codes
  - Air tightness requirements of homes
  - Higher R-value + continuous insulation on exterior walls
  - Windows—next in line for sweeping upgrades
Trends Shaping the Building Materials Industry

- **Demographics**
  - Younger home owners/buyers—transitioning from renting
  - Smaller, more affordable single family homes

- **More durable products**
  - Favoring plastics in many categories on interior & exterior

- **Technology improvements**
  - Plastics with decorative + wear layers gaining much ground
    - flooring, decks, siding, windows, countertops and more

- **Design trends favoring simpler styles (more euro and urban) and contemporary design**—primarily interiors but also exteriors
  - Exteriors incorporate lines suggestive of traditional styles
  - Wood, stone, concrete, and steel—with multiple textures on exterior
  - Open floorplans still popular but defined living spaces
  - Painted cabinets & wood floors in kitchen

- **Blurring transition from indoor to outdoor living**—window walls or lots of glass, upgraded outdoor living space
Basis for Presentation Data: Annual Building Product Tracking Studies

- Home Innovation has been tracking annual materials purchases since 1995
  - Builder Practices Survey of 1,550 U.S. Builders
  - Consumer Practices Survey of 100,000+ U.S. households
- Decades of custom market research, sponsored by hundreds of building materials manufacturers
- Support of development and launch of hundreds of new building products
U.S. New Housing Mix Trend
(based on annual housing units starts)

Source: Annual Builder Practices Reports and NAHB Housing Starts
Residential Flooring Installations 2018 (millions of SF)

About 16 billion square Feet of flooring was installed in homes in the U.S. in 2018.

- Remodel/Replacement
- New Homes
Flooring in New Single Family Homes, 2018

- Carpeting, 35%
- Ceramic tile, 22%
- Solid Wood, 15%
- Engineered Wood, 12%
- Vinyl sheet, 3%
- Vinyl tile, 2%
- LVT/LVP tile or plank, 7%
- Laminate, 2%
- Other, 1%
- Marble, 1%
Flooring Shares in New Single Family Homes

- Carpeting
- Tile & Natural Stone
- Solid Wood
- Engineered Wood
- Vinyl/Resilient
- Other

Flooring in Residential Remodeling

- Carpeting, 24%
- Solid Wood, 14%
- Engineered Wood, 6%
- Ceramic tile, 13%
- LVT/LVP tile or plank, 13%
- Vinyl Tile, 8%
- Vinyl Sheet, 5%
- Laminate, 10%
- Marble, 2%
- Other, 5%
Flooring in Residential Remodeling

- Vinyl/Resilient
- Carpeting
- Tile & Natural Stone
- Solid Wood
- Laminate
- Engineered Wood
- Other
Windows Installed in New U.S. Homes and Home Remodeling, 2018
(millions of window units)

- Vinyl:
  - New Homes: 11.0
  - Home Remodeling: 19.6
- Wood:
  - New Homes: 4.4
  - Home Remodeling: 11.1
- Composite & Other:
  - New Homes: 4.8
  - Home Remodeling: 4.8
- Aluminum:
  - New Homes: 1.8
  - Home Remodeling: 4.3

About 58 million windows/year installed in homes.

Source: Annual Builder & Consumer Practices Reports
Trends in New SFD Home Window Frame Materials

Source: Annual Builder Practices Reports
Window Frame Materials in New U.S. Homes by Size of Builder, 2018

Source: Annual Builder Practices Reports
Windows in U.S. Home Repair, Replacement, and Remodeling

Source: Annual Consumer Practices Reports
Patio Doors Purchased for New Homes and Remodeling, 2018

(Thousands of units)

About 4 million residential patio doors were purchased in 2018.

Source: Annual Builder & Consumer Practices Reports
Siding in New Homes and Remodeling, 2018 (millions of SF)

Residential siding represents more than 8 billion square feet annually.

- Vinyl & Other Plastic: New Homes 500, Remodeling 1,943
- Engineered Wood & Plywood: New Homes 315, Remodeling 857
- Fiber Cement: New Homes 694, Remodeling 459
- Stone & Brick: New Homes 709, Remodeling 420
- Natural Wood: New Homes 154, Remodeling 806
- Stucco: New Homes 545, Remodeling 363
- Metal: New Homes 442
- Other

Source: Annual Builder & Consumer Practices Reports
Siding on New SFD Homes

Source: Annual Builder Practices Reports
Siding in Home Remodeling

Source: Annual Consumer Practices Reports
Exterior Trim & Fascia Board for New U.S. Homes, 2018

(millions of LF)

- Natural Wood: 170 (New Homes), 184 (Remodeling)
- Engineered Wood: 177 (New Homes), 81 (Remodeling)
- Fiber Cement: 197 (New Homes), 15 (Remodeling)
- Aluminum Wrap: 129 (New Homes), 73 (Remodeling)
- Vinyl Wrap: 78 (New Homes), 95 (Remodeling)
- PVC & Plastic Composite: 90 (New Homes), 48 (Remodeling)
- Other: 47 (New Homes), 43 (Remodeling)

About 1.5 billion LF of exterior trim and fascia board were installed on homes in 2018.

Source: Annual Builder & Consumer Practices Reports
Exterior Trim & Fascia Board for New U.S. Homes

Source: Annual Builder Practices Reports
Exterior Trim & Fascia for U.S. Home Remodeling

Source: Annual Consumer Practices Reports
Porch & Deck Surfacing in New Homes and Remodeling, 2016
(millions of sf installed)

- Treated wood: 595
- Composite: 181
- Cedar: 149
- Redwood: 82
- Other untreated wood: 33
- PVC & other plastic: 28

Residential Decking market is about 700 million sq.ft. installed per year (composite = 220 MM)

Source: Annual Builder & Consumer Practices Reports
Raised Porch and Deck Material in New SFD Homes

Source: Annual Builder Practices Reports
Porch and Deck Surfacing Material in U.S. Residential Remodeling

Source: Annual Consumer Practices Reports
The U.S. home porch and deck railing market is about 135 million linear feet per year (~1 billion feet of lineals).

Source: Annual Builder & Consumer Practices Reports
Deck and Porch Railing in New U.S. Homes

Source: Annual Builder Practices Reports
Deck and Porch Railing in U.S. Home Remodeling

Source: Annual Consumer Practices Reports
Fences & Privacy Walls Installed in New Homes and Remodeling, 2018
(millions of SF)

- About 1.6 billion SF of fence installed in 2018 on residential properties
- Plastic/Composite = about 200 million SF

Source: Annual Builder & Consumer Practices Reports
Fence & Privacy Walls Installed in U.S. Home Remodeling

Source: Annual Consumer Practices Reports
THANK YOU

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