National Association of Home Builders / Bank of America Home Equity

# **STUDY OF** LIFE EXPECTANCY OF HOME COMPONENTS





FEBRUARY 2007

75 YEARS 80 YEARS 85 YEARS 90 YEARS 95 YEARS 100 YEARS

**5 YEARS** 

**10 YEARS** 

**15 YEARS** 

YF

# National Association of Home Builders/ Bank of America Home Equity Study of Life Expectancy of Home Components

# Prepared by the Economics Group of NAHB

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# National Association of Home Builders/ Bank of America Home Equity Study of Life Expectancy of Housing Components

#### INTRODUCTION

The life expectancies of the components of a home depend on the quality of installation, the level of maintenance, weather and climate conditions, and the intensity of use. Some components may remain functional but become obsolete due to changing styles and preferences or improvements in newer products while others may have a short life expectancy due to intensive use.

The average life expectancy for some components has increased during the past 35 years because of new products and the introduction of new technologies, while the average life of others has declined. NAHB's last such study on the life expectancy of housing components was published in *Housing Economics* in August 1993.

#### **U.S. HOUSING STOCK**

The 2005 American Housing Survey by the U.S. Census Bureau shows that there are more than 124 million homes in the housing stock, with a median age of 32 years. About one-third of the housing stock was built in 1960 or earlier. About 10 percent was built in the 1960s, and another 20 percent was built in the 1970s. Of the remainder, 13 percent was built in the 1980s, another 13 percent was built in the 1990s, and 8 percent in the first years of the  $21^{\text{s}}$  century.

Of the total stock of 124.3 million housing units, about 109 million are occupied housing units, 11.6 million are vacant and about 4 million are seasonal. Two-thirds of all units in the nation's housing stock are single-family detached or attached, 8 percent are in buildings with 2 to 4 units, and about 17 percent are in buildings with 5 or more units. The remaining 7 percent of the stock is in HUD-code homes.

About 18 percent of the occupied housing stock is in the Northeast, 23 percent is in the Midwest, 37 percent is in the South, and 21 percent is in the West.

#### THE STUDY

In the summer of 2006, NAHB conducted a comprehensive telephone survey of manufacturers, trade associations and researchers to develop information about the longevity of housing components.

Many of the people interviewed emphasized that the life expectancy of housing components is greatly affected by the quality of maintenance. They also noted that changing consumer preferences can result in products being replaced long before -- or after -- the end of their practical life expectancy.

This article provides a synopsis of the survey results (Table 1).

[Note: This report should be used as a general guideline only. None of the information in this report should be interpreted as a representation, warranty or guarantee regarding the life expectancy or performance of any individual product or product line. Readers should not make buying decisions and/or product selections based solely on the information contained in this report.]

# **Findings**

#### Appliances

The life expectancy of a typical appliance depends to a great extent on the use it receives. Moreover, appliances are often replaced long before they are worn out because changes in styling, technology and consumer preferences make newer products more desirable. Of the major appliances in a home, gas ranges have the longest life expectancy: 15 years. Dryers and refrigerators last about 13 years. Some of the appliances with the shortest lifespan are: compactors (6 years), dishwashers (9 years) and microwave ovens (9 years).

#### **Cabinetry and Storage**

Kitchens are becoming larger and more elaborate, and together with the family room, modern kitchens now form the "great room." Great rooms are not only a place to cook, but also a space where people gather to read, eat, do homework, surf the Internet and pay bills. Kitchen cabinets are expected to last up to 50 years, medicine cabinets for 20+ years, and garage/laundry cabinets for 100+ years. Closet shelves are expected to last for a lifetime.

#### **Concrete and Masonry**

Masonry is one of the most durable components of a home. Chimneys, fireplaces, and brick veneers can last a lifetime, and brick walls have an average life expectancy of more than 100 years.

#### Countertops

Natural stone countertops, which are less expensive than a few years ago, are gaining in popularity and are expected to last a lifetime. Cultured marble countertops have a life expectancy of about 20 years.

#### Decks

Because they are subject to a wide range of conditions in different climates, the life expectancy of wooden decks can vary significantly. Under ideal conditions, they have a life expectancy of about 20 years.

#### Doors

Exterior fiberglass, steel and wood doors will last as long as the house exists, while vinyl and screen doors have a life expectancy of 20 and 40 years, respectively. Closet doors are expected to last a lifetime, and French doors have an average life of 30 to 50 years.

#### **Electrical and Lighting**

Copper plated wiring, copper clad aluminum, and bare copper wiring are expected to last a lifetime, whereas electrical accessories and lighting controls are expected to last 10+ years.

#### **Engineered Lumber**

Floor and roof trusses and laminated strand lumber are expected to last a lifetime, and engineered trim is expected to last 30 years.

#### **Faucets and Fixtures**

Kitchen sinks made of modified acrylic will last 50 years, while kitchen faucets will work properly for about 15 years. The average life of bathroom shower enclosures is 50 years. Showerheads last a lifetime, while shower doors will last about 20 years. Bath cabinets and toilets have an unlimited lifespan, but the components inside the toilet tank do require some maintenance. Whirlpool tubs will function properly for 20 to 50 years, depending on use.

#### Flooring

All natural wood floorings have a life expectancy of 100 years or more. Marble, slate, and granite are also expected to last for about 100 years, but can last less due to a lack of maintenance. Vinyl floors last up to 50 years, linoleum about 25 years, and carpet between 8 and 10 years (with appropriate maintenance and normal traffic).

#### **Footings and Foundations**

Poured as well as concrete block footings and foundations last a lifetime, assuming they were properly built. Termite proofing of foundations will last about 12 years if the chemical barriers put in place during construction are left intact. Waterproofing with bituminous coating lasts 10 years, but if it cracks it is immediately damaged. Concrete or cast iron waste pipes are expected to last 100 years or more.

#### Framing and Other Structural Systems

Framing and structural systems have extended longevities: poured-concrete systems, timber frame houses and structural insulated panels will all last a lifetime. Wall panels and roof and floor trusses will similarly last a lifetime. Softwood, hardboard, and plywood last an average of 30 years, while OSB and particleboard are expected to function properly for 60 years.

#### Garages

Garage door openers are expected to last 10 to 15 years, and light inserts for 20 years.

#### **Home Technology**

Home technology systems have various life expectancies. While a built-in audio system will last 20 years, security systems and heat/smoke detectors have life expectancies of 5 to 10 years. Wireless home networks and home automation systems are expected to work properly for more than 50 years.

#### Heating, Ventilation, and Air Conditioning (HVAC)

Heating, ventilation, and air conditioning systems require proper and regular maintenance in order to work efficiently, but even in the best case scenarios most components of such systems only last 15 to 25 years. Furnaces on average last 15-20 years, heat pumps 16 years, and air conditioning units 10-15 years. Tankless water heaters last more than 20 years, while an electric or gas water heater has a life expectancy of about 10 years. Thermostats usually are replaced before the end of their 35-year lifespan due to technological improvements.

#### **Insulation and Infiltration Barriers**

As long as they are not punctured, cut, or burned and are kept dry and away from UV rays, the cellulose, fiberglass, and foam used in insulation materials will last a lifetime. This is true whether the insulation was applied as loose fill, house wrap, or batts/rolls.

#### **Jobsite Equipment**

Ladders are expected to last a lifetime, and life expectancy of lifts is about 8 to 10 years.

#### **Molding and Millwork**

Custom millwork will last a lifetime, and all stairs – circular and spiral stairs, prebuilt stairs and attic stairs – are expected to last a lifetime.

#### Paint, Caulks and Adhesives

Both interior and exterior points can last for 15 years or longer, however home owners often paint more frequently.

#### Panels

Hardboard panels and softwood panels are expected to last 30 years, while oriented strand board and particleboard have a life expectancy of 60 years. Wall panels are expected to last a lifetime.

#### Roofing

The life of a roof depends on local weather conditions, proper building and design, material quality, and adequate maintenance. Slate, copper, and clay/concrete roofs have the longest life expectancy – over 50 years. Roofs made of asphalt shingles last for about 20 years while roofs made of fiber cement shingles have a life expectancy of about 25 years, and roofs made of wood shakes can be expected to last for about 30 years.

#### Siding and Accessories

Outside materials typically last a lifetime. Brick, vinyl, engineered wood, stone (both natural and manufactured), and fiber cement will last as long the house exists. Exterior wood shutters are expected to last 20 years, depending on weather conditions. Gutters have a life expectancy of more than 50 years if made of copper and for 20 years if made of aluminum. Copper downspouts last 100 years or more, while aluminum ones will last 30 years.

#### Site and Landscaping

Most landscaping elements have a life expectancy of 15 to 25 years. Sprinklers and valves last about 20 years, while underground PVC piping has a lifespan of 25 years. Polyvinyl fences are designed to last a lifetime, and asphalt driveways should last between 15 and 20 years.

Tennis courts can last a lifetime if recoated; most coatings last 12 to 15 years. The concrete shell of a swimming pool is expected to last over 25 years, but the interior plaster and tile have life expectancies of about 10 to 25 years.

## Walls, Ceilings and Finishes

Walls and ceilings last the full lifespan of the home.

# Windows and Skylights

Aluminum windows are expected to last between 15 and 20 years while wooden windows should last upwards of 30 years.

	Life in Years	Comments
1. APPLIANCES		
Exhaust Fan	10	
Compactors	6	
Dishwashers	9	
Disposers, Food Waste	12	
Dryers, Electric	13	
Dryers, Gas	13	
Freezers	11	
Microwave Ovens	9	
Ranges, Electric	13	
Ranges, Gas	15	
Range/Oven Hoods	14	
Refrigerators, Compact	9	
Refrigerators, Standard	13	
Washers	10	
Water Heaters, Electric	11	
Water Heaters, Gas	10	
Air-Conditioners, Room	10	
Air-Conditioners, Unitary	15	
Boilers, Electric	13	
Boilers, Gas	21	
Dehumidifiers	8	
Furnaces, Warm-Air, Electric	15	
Furnaces, Warm-Air, Gas	18	
Furnaces, Warm-Air, Oil	20	
Heat Pumps	16	
Humidifiers	8	
<i>Note: Life expectancy is based on first-ou</i>	-	
Source: Appliance Magazine, Sep 2005 is		
2. CABINETRY & STORAGE		
<u>Cabinet Lines</u>		
Bath Cabinets	Lifetime	
Entertainment Centers/Home Office	10	
Garage/Laundry Cabinets	100+	
Kitchen Cabinets	50	
Medicine Cabinets	20+	
Manufacturing Types	50	
Manufacturing Types Modular/Stock	50	
	Lifetime	

	Life in Years	Comments
3. CONCRETE & MASONRY		
Brick	100+	
Veneer	Lifetime	
Caulking (for sealer)	2-20	
Source: General Shale Brick, NHAC	CP and NCSG, Sashco Sea	lants
4. COUNTERTOPS		
Cultured Marble	20	
Natural Stone	Lifetime	
Tile	Lifetime	
Wood	Lifetime	
ndustries, United States Ceramic <sup>2</sup> 5. DECKS	File Co., National Hardwoo	twater, Formica Corp, Gibco Services, Florida Tile od Flooring & Moulding
5. DECKS Wood	20 Dry area	· · · · · · · · · · · · · · · · · · ·
<b>5. DECKS</b> Wood Deck Planks		od Flooring & Moulding
5. DECKS Wood	20 Dry area	od Flooring & Moulding
5. DECKS Wood Deck Planks Source: Decks.com, Timbertech 5. DOORS	20 Dry area	od Flooring & Moulding
5. DECKS Wood Deck Planks Source: Decks.com, Timbertech 5. DOORS Exterior Doors	20 Dry area	od Flooring & Moulding
5. DECKS Wood Deck Planks Source: Decks.com, Timbertech 5. DOORS	20 Dry area 25 Lifetime	od Flooring & Moulding
5. DECKS Wood Deck Planks Source: Decks.com, Timbertech 5. DOORS <u>Exterior Doors</u> Fiberglass	20 Dry area 25 Lifetime	od Flooring & Moulding
5. DECKS Wood Deck Planks Source: Decks.com, Timbertech 5. DOORS <u>Exterior Doors</u> Fiberglass Screen	20 Dry area 25 Lifetime 40 Pine 20	od Flooring & Moulding
5. DECKS Wood Deck Planks Source: Decks.com, Timbertech 5. DOORS Exterior Doors Fiberglass Screen Steel, Fire-Rated	20 Dry area 25 Lifetime 40 Pine 20 Lifetime	od Flooring & Moulding
5. DECKS Wood Deck Planks Source: Decks.com, Timbertech 5. DOORS Exterior Doors Fiberglass Screen Steel, Fire-Rated Vinyl Wood <u>Interior Doors</u>	20 Dry area 25 Lifetime 40 Pine 20 Lifetime 20 Lifetime	od Flooring & Moulding
5. DECKS Wood Deck Planks Source: Decks.com, Timbertech 5. DOORS Exterior Doors Fiberglass Screen Steel, Fire-Rated Vinyl Wood Interior Doors French	20 Dry area 25 Lifetime 40 Pine 20 Lifetime 20 Lifetime 30 to 50	od Flooring & Moulding
5. DECKS Wood Deck Planks Source: Decks.com, Timbertech 5. DOORS Exterior Doors Fiberglass Screen Steel, Fire-Rated Vinyl Wood <u>Interior Doors</u>	20 Dry area 25 Lifetime 40 Pine 20 Lifetime 20 Lifetime	od Flooring & Moulding
5. DECKS Wood Deck Planks Source: Decks.com, Timbertech 5. DOORS Exterior Doors Fiberglass Screen Steel, Fire-Rated Vinyl Wood Interior Doors French Closet	20 Dry area 25 Lifetime 40 Pine 20 Lifetime 20 Lifetime 30 to 50 Lifetime	od Flooring & Moulding

	Life in Years	Comments
7. ELECTRICAL & LIGHTING		
Accessories	10+	
Lighting Controls	10+	
O W'		
Copper Wiring	T 10 . 1	
Copper Plated		If used in a non-corrosive environment.
Copper Clad Aluminum	Lifetime	
Bare Copper	Lifetime	
Source: Lutron Electronics, Lighting C	Controls Associc	ation, Copper Development Assoc.
8. ENGINEERED LUMBER		
Engineered Trim	30	
Laminated Strand Lumber	Lifetime	
Laminated Veneer Lumber	30+	
Trusses, Floor	Lifetime	
Trusses, Roof	Lifetime	
	n, Georgia Pacif	fic Corp., Georgia Pacific Corp., Lumber Specialties
Source: Engineered Wood Association 9. FAUCETS & FIXTURES	n, Georgia Pacif	fic Corp., Georgia Pacific Corp., Lumber Specialties
	n, Georgia Pacif Lifetime	fic Corp., Georgia Pacific Corp., Lumber Specialties
9. FAUCETS & FIXTURES		fic Corp., Georgia Pacific Corp., Lumber Specialties
<b>9. FAUCETS &amp; FIXTURES</b> Accessible/ADA Products	Lifetime	fic Corp., Georgia Pacific Corp., Lumber Specialties
<b>9. FAUCETS &amp; FIXTURES</b> Accessible/ADA Products Faucets, Bar/Hospitality	Lifetime 15	fic Corp., Georgia Pacific Corp., Lumber Specialties
<b>9. FAUCETS &amp; FIXTURES</b> Accessible/ADA Products Faucets, Bar/Hospitality Faucets , Kitchen Sinks	Lifetime 15 15	fic Corp., Georgia Pacific Corp., Lumber Specialties
<b>9. FAUCETS &amp; FIXTURES</b> Accessible/ADA Products Faucets, Bar/Hospitality Faucets , Kitchen Sinks Faucets, Lavatory	Lifetime 15 15 20+	fic Corp., Georgia Pacific Corp., Lumber Specialties Wear issues depending on use, new cartridges or seals.
<b>9. FAUCETS &amp; FIXTURES</b> Accessible/ADA Products Faucets, Bar/Hospitality Faucets , Kitchen Sinks Faucets, Lavatory Faucets, Tub/Shower	Lifetime 15 15 20+ 20+	
9. FAUCETS & FIXTURES Accessible/ADA Products Faucets, Bar/Hospitality Faucets, Kitchen Sinks Faucets, Lavatory Faucets, Tub/Shower Faucets, Toilets/Bidets	Lifetime 15 15 20+ 20+ 10	
<b>9. FAUCETS &amp; FIXTURES</b> Accessible/ADA Products Faucets, Bar/Hospitality Faucets, Kitchen Sinks Faucets, Lavatory Faucets, Tub/Shower Faucets, Toilets/Bidets Saunas/Steam Rooms	Lifetime 15 15 20+ 20+ 10 15-20	
<b>9. FAUCETS &amp; FIXTURES</b> Accessible/ADA Products Faucets, Bar/Hospitality Faucets, Kitchen Sinks Faucets, Lavatory Faucets, Tub/Shower Faucets, Toilets/Bidets Saunas/Steam Rooms Shower Doors	Lifetime 15 15 20+ 20+ 10 15-20 20+	Wear issues depending on use, new cartridges or seals.
9. FAUCETS & FIXTURES Accessible/ADA Products Faucets, Bar/Hospitality Faucets, Kitchen Sinks Faucets, Lavatory Faucets, Tub/Shower Faucets, Toilets/Bidets Saunas/Steam Rooms Shower Doors Shower Enclosures/Modules	Lifetime 15 15 20+ 20+ 10 15-20 20+ 50	Wear issues depending on use, new cartridges or seals.
9. FAUCETS & FIXTURES Accessible/ADA Products Faucets, Bar/Hospitality Faucets, Kitchen Sinks Faucets, Lavatory Faucets, Tub/Shower Faucets, Toilets/Bidets Saunas/Steam Rooms Shower Doors Shower Enclosures/Modules Showerheads	Lifetime 15 15 20+ 20+ 10 15-20 20+ 50 Lifetime	Wear issues depending on use, new cartridges or seals. The components inside toilet tank and valves that operate bide
9. FAUCETS & FIXTURES Accessible/ADA Products Faucets, Bar/Hospitality Faucets, Kitchen Sinks Faucets, Lavatory Faucets, Tub/Shower Faucets, Toilets/Bidets Saunas/Steam Rooms Shower Doors Shower Enclosures/Modules Showerheads Toilets/Bidets	Lifetime 15 15 20+ 20+ 10 15-20 20+ 50 Lifetime Lifetime	Wear issues depending on use, new cartridges or seals. The components inside toilet tank and valves that operate bide will require occasional maintenance. Lifespan of the rotating engine depends on the use made of
<ul> <li>9. FAUCETS &amp; FIXTURES</li> <li>Accessible/ADA Products <ul> <li>Faucets, Bar/Hospitality</li> <li>Faucets, Bar/Hospitality</li> <li>Faucets, Kitchen Sinks</li> <li>Faucets, Lavatory</li> <li>Faucets, Tub/Shower</li> <li>Faucets, Toilets/Bidets</li> <li>Saunas/Steam Rooms</li> <li>Shower Doors</li> <li>Shower Enclosures/Modules</li> <li>Showerheads</li> <li>Toilets/Bidets</li> </ul> </li> <li>Whirlpool Tubs</li> </ul>	Lifetime 15 15 20+ 20+ 10 15-20 20+ 50 Lifetime Lifetime	Wear issues depending on use, new cartridges or seals. The components inside toilet tank and valves that operate bide will require occasional maintenance. Lifespan of the rotating engine depends on the use made of
9. FAUCETS & FIXTURES Accessible/ADA Products Faucets, Bar/Hospitality Faucets, Kitchen Sinks Faucets, Lavatory Faucets, Tub/Shower Faucets, Toilets/Bidets Saunas/Steam Rooms Shower Doors Shower Enclosures/Modules Showerheads Toilets/Bidets Whirlpool Tubs Sinks: Kitchen & others	Lifetime 15 15 20+ 20+ 10 15-20 20+ 50 Lifetime Lifetime 20-50	Wear issues depending on use, new cartridges or seals. The components inside toilet tank and valves that operate bide will require occasional maintenance. Lifespan of the rotating engine depends on the use made of

Source: Delta Faucet Co., Grohe, Kohler Co., Moen, Plexicor (part of Karran), Toto USA, Acquinox, Alumax, Alsons, Karran, Green Mountain Soapstone Corp., Saunastore

	Life in Years	Comments
0. FLOORING		
All Wooden Floors	Lifetime	
Bamboo	Lifetime	
Brick Pavers	100+	
Carpet	8-10	
Concrete	50+	
Engineered Wood	50+	
Exotic Wood	Lifetime	
Granite	100+	
Laminate	15-25	
Linoleum	25	
Marble	100+	
Slate	100	
Tile	75-100	
Vinyl	50	
Other Domestic Wood	Lifetime	
Terrazo	75+	

Source:Marble Institute of America, Berg & Berg, Dal-Tile Corp, Floortec, National Wood Flooring Association, General Shale Brick, Masland Carpets, Beaulieu of America, Concrete Designs, Formica Corp, Linoleumstore.com, DePaoli Mosaic, Monarch Ceramic Tile

#### 11. FOOTINGS & FOUNDATIONS

Poured Footings and Foundations	Lifetime	
Concrete Block	Lifetime	Properly built foundations last indefinitely.
Termite Proofing	12	"Pre-treatment during construction: longevity of treatment depends on disturbance or not of the chemical barriers in place."
Bituminous Coating Waterproofing	10	If it cracks, it is immediately damaged.
Pargeting with Ionite	20-30	It's not typical in a residential setting. Its downfall is when it cracks.
Baseboard System	50	
Plumbing		
Concrete Waste Pipe	100	
Cast Iron Waste Pipe	100	

Source: Dry Up Basement, Unexco, Cast Iron Soil Pipe Institute, American Concrete Pipe Association, National Ready Mixed Concrete Assoc, Quikrete

#### **12. FRAMING & OTHER STRUCTURAL SYSTEMS**

Poured-Concrete Systems	Lifetime
Structural Insulated Panels	Lifetime
Timber Frame Homes	Lifetime

Source: ConForm Pacific, NGS Materials, Post & Beam Factory

	Life in Years	Comments
13. GARAGES		
Garage Door Openers	10-15	
Light Inserts	20	
Source: Wayne-Dalton Corp.		
14. HOME TECHNOLOGY		
Audio, Built-in	20	
Heat/Smoke Detectors	<10	National Fire Alarm Code requires that detectors be replaced every 10 years.
Home Automation Systems	Lifetime	
Home Networks, Wireless	50+	
Security Systems	5-10	
Source: LiteTouchHome Director, ADT and	d Slomin's I	Home Security, Home Director, Home Seer
15. HVAC		
Air Conditioners	10-15	
Air Quality Systems	15	
Boilers	13-21	
Dehumidifiers	8	
Ducting	10	
Furnaces	15-20	
Heat Pumps	16	
Heat Recovery Ventilators	20+	
Thermostats	35	
Ventilators	7	
Water Heaters, Tankless	20+	
Electric Radiant Heater	40	
Hot Water or Steam Radiant Heater	15+	
Diffusers, Grilles, and Registers	25	
Induction and Fan-Coil Units	10-15	
Dampers	20+	
DX, Water, or Steam	20	
Electric	15	
Shell-and-Tube	20	
Molded Insulation		Not usually used residentially.
Burners	<10	Oil burners need more maintenance and don't last as long as gas burners.

Source: CenterPoint Energy and Trane Residential system Group, Smarter Way Inc., CenterPoint Energy, Air Quality Engineering, CenterPoint Energy and Luxaire Unitary Products Group, Association of Home Appliance Manufacturers, American Society of Heating, Refrigerating and Air-Conditioning Engineers, Econar, Lomanco, Honeywell, American Society of Heating, Refrigerating and Air-Conditioning Engineers, EWC Controls, Fantech, No. American Insulation Manufacturers Assoc.US Dept. of Energy, Radiant Electric Heat, Radiantec, Radiantec, American Society of Heating, Refrigerating and Air-Conditioning Engineers, Power Flame Inc., Appliance Magazine

	Life in Years	Comments
16. INSULATION & INFILT	RATION BARRIERS	
Insulation Material		
Cellulose	100+	
Fiberglass	Lifetime	
Foam	Lifetime	
Insulation Type		
Batts/Rolls	Lifetime	
House Wrap	Lifetime	
Loose Fill	Lifetime	
Source: DuPont, National Fiber, Jo Association	hns Manville, RHH Foam Syst	ems, No. American Insulation Manufacturer
17. JOBSITE EQUIPMENT		
Ladders	Lifetime	
Ladders Lifts	Lifetime 8-10	
	8-10 , Genie Industries	
Lifts Source: Putnam Rolling Ladder Co.	8-10 , Genie Industries	
Lifts Source: Putnam Rolling Ladder Co.	8-10 , <i>Genie Industries</i> <b>K</b> Lifetime	
Lifts <i>Source: Putnam Rolling Ladder Co.</i> <b>18. MOLDING &amp; MILLWORD</b> Custom Millwork Stair Parts	8-10 , Genie Industries <b>K</b>	
Lifts <i>Jource: Putnam Rolling Ladder Co.</i> <b>8. MOLDING &amp; MILLWOR</b> Custom Millwork Stair Parts Stairs, Circular & Spiral	8-10 , <i>Genie Industries</i> <b>K</b> Lifetime Lifetime	
Lifts Source: Putnam Rolling Ladder Co. <b>18. MOLDING &amp; MILLWORD</b> Custom Millwork Stair Parts	8-10 , <i>Genie Industries</i> <b>K</b> Lifetime Lifetime Lifetime	
Lifts Source: Putnam Rolling Ladder Co. <b>18. MOLDING &amp; MILLWORD</b> Custom Millwork Stair Parts Stairs, Circular & Spiral Stairs, Prebuilt Stairs, Attic	8-10 , Genie Industries K Lifetime Lifetime Lifetime Lifetime Lifetime Lifetime	hitectural Specialties, StairWorld, National
Lifts Source: Putnam Rolling Ladder Co. <b>18. MOLDING &amp; MILLWORD</b> Custom Millwork Stair Parts Stairs, Circular & Spiral Stairs, Prebuilt Stairs, Attic Source: York Spiral StairAzek, Auth Hardwood Flooring & Moulding	8-10 , Genie Industries K Lifetime Lifetime Lifetime Lifetime Lifetime	hitectural Specialties, StairWorld, National
Lifts Source: Putnam Rolling Ladder Co. <b>18. MOLDING &amp; MILLWORD</b> Custom Millwork Stair Parts Stairs, Circular & Spiral Stairs, Prebuilt Stairs, Attic Source: York Spiral StairAzek, Auth	8-10 , Genie Industries K Lifetime Lifetime Lifetime Lifetime Lifetime	hitectural Specialties, StairWorld, National
Lifts <i>Fource: Putnam Rolling Ladder Co.</i> <b>18. MOLDING &amp; MILLWORM</b> Custom Millwork Stair Parts Stairs, Circular & Spiral Stairs, Prebuilt Stairs, Attic <i>Fource: York Spiral StairAzek, Auth</i> <i>Hardwood Flooring &amp; Moulding</i>	8-10 , Genie Industries K Lifetime Lifetime Lifetime Lifetime hentic Pine Floors, Century Arc	hitectural Specialties, StairWorld, National
Lifts <i>Source: Putnam Rolling Ladder Co.</i> <b>18. MOLDING &amp; MILLWORD</b> Custom Millwork Stair Parts Stairs, Circular & Spiral Stairs, Prebuilt Stairs, Attic <i>Source: York Spiral StairAzek, Auth</i> <i>Ardwood Flooring &amp; Moulding</i> <b>19. PAINTS, CAULKS, &amp; AN</b>	8-10 , Genie Industries K Lifetime Lifetime Lifetime Lifetime Lifetime	hitectural Specialties, StairWorld, National
Lifts <i>Fource: Putnam Rolling Ladder Co.</i> <b>18. MOLDING &amp; MILLWORM</b> Custom Millwork Stair Parts Stairs, Circular & Spiral Stairs, Prebuilt Stairs, Attic <i>Fource: York Spiral StairAzek, Auth</i> <i>Index Moulding</i> <b>19. PAINTS, CAULKS, &amp; Al</b> <u>Adhesives</u> Roofing <u>Paints &amp; Stains</u>	8-10 , Genie Industries K Lifetime Lifetime Lifetime Lifetime hentic Pine Floors, Century Arc DHESIVES	hitectural Specialties, StairWorld, National
Lifts <i>Source: Putnam Rolling Ladder Co.</i> <b>18. MOLDING &amp; MILLWORD</b> Custom Millwork Stair Parts Stairs, Circular & Spiral Stairs, Prebuilt Stairs, Attic <i>Source: York Spiral StairAzek, Auth</i> <i>Adhesives</i> Roofing	8-10 , Genie Industries K Lifetime Lifetime Lifetime Lifetime hentic Pine Floors, Century Arc DHESIVES 7 15+	hitectural Specialties, StairWorld, National

	Life in Years	Comments	
0. PANELS			
Hardboard	30		
Oriented-Strand Board	25-30		
Particleboard	60		
Plywood	60		
Softwood	30		
Underlayment, Flooring	25		
Wall Panels	Lifetime		
	Materials, Weyerhaeuser, Jam	es Hardie Building Products	
Cource: Georgia Pacific Corp., NGS <b>21. ROOFING</b> Material	Materials, Weyerhaeuser, Jam	es Hardie Building Products	
21. ROOFING Material	Materials, Weyerhaeuser, Jam 3-7	es Hardie Building Products	
21. ROOFING		es Hardie Building Products	
21. ROOFING <u>Material</u> Aluminium Roof Coating	3-7	es Hardie Building Products	
21. ROOFING <u>Material</u> Aluminium Roof Coating Fiber Cement	3-7 25	es Hardie Building Products	
21. ROOFING <u>Material</u> Aluminium Roof Coating Fiber Cement Asphalt	3-7 25 20	es Hardie Building Products	
21. ROOFING <u>Material</u> Aluminium Roof Coating Fiber Cement Asphalt Modified Bitumen	3-7 25 20 20	es Hardie Building Products	
21. ROOFING <u>Material</u> Aluminium Roof Coating Fiber Cement Asphalt Modified Bitumen Copper	3-7 25 20 20 Lifetime	es Hardie Building Products	
21. ROOFING <u>Material</u> Aluminium Roof Coating Fiber Cement Asphalt Modified Bitumen Copper Simulated Slate	3-7 25 20 20 Lifetime 50	es Hardie Building Products	
21. ROOFING <u>Material</u> Aluminium Roof Coating Fiber Cement Asphalt Modified Bitumen Copper Simulated Slate Wood	3-7 25 20 20 Lifetime 50 30	es Hardie Building Products	

Metals USA, GAF Material Corp.

	Life in Years	Comments
22. SIDING & ACCESSORIES	Iears	
<u>Material</u>		
Brick	Lifetime	
Engineered Wood	Lifetime	
Fiber Cement	Lifetime	
Manufactured Stone	Lifetime	
Stone	Lifetime	
Stucco	50-100	
Vinyl	Lifetime	
Related Accessories		
Soffits/Fascias	50	This time period applies for fascia in fiber-cement only.
Trim	25	
Shutters		
Wood/Exterior	20	
Wood/Interior	15+	
Aluminium/Interior	10+	Sun can cause the strings to break.
Gutters and Downspouts		
Copper	50+	
Aluminium	20	
Galvanized Steel	20	
	30	
Downspouts (Copper)	100	
Galvanized Steel Downspouts (Aluminum)	20 30	

Source: Boral Bricks, APA, GAF Material Corp., James Hardie Building Products, Boulder Creek Stone and Brick, Owens Corning, Genstone Enterprises, El Rey Stucco, Heartland Building Products, Azek, James Hardie Building Products, Blinds.com, Vixen Hill Mfg. Co., Yost Mfg. & Supply, Berger Building Products, Guttersupply.com, (Rain Trade Corp. division)

#### 23. SITE & LANDSCAPING

Asphalt Driveway	15-20	
Polyvinyl Fences	Lifetime	
Clay Paving	Lifetime	
Underground PVC Piping	25	
Valves	20	
Sprinklers	20	Usually made obsolete by advances in technology.
Controllers	15	Lifespan given for areas not prone to lighting strikes.
<u>Tennis Court</u>		
Fast-Dry Green	Lifetime	

	Life in Years	Comments
23. SITE & LANDSCAPING (C	Continued)	
Asphalt with Acrylic Coating	12-15	Age before requiring major work. Requires recoating every 5-7 years.
Asphalt with Acrylic Cushion Coating	12-15	Age before requiring major work. Requires recoating every 5-7 years.
American Red Clay	Lifetime	
Fast-Dry with Subsurface Irrigation Red or Green	Lifetime	Maintenance: average 10 minutes a day per court.
Swimming pool		
General	Lifetime	
Concrete Shell	25+	
Interior Finish/Plaster	10-15	
Interior Finish/Pebble-tec	25-35	
Interior Finish/Tile	15-25	
Cleaning Equipment	7-10	
Decking	15	
Waterline Tile Source: Paddock Pools, Patios & Spas		
Waterline Tile Source: Paddock Pools, Patios & Spas	s, Boral Bricks, ssional Builder <b>VISHES</b>	Accurate Tennis, Aquatic Technology, Huyser, Digger Specialtie rs, Inyo Pool Products, Omega Pool Structures, Inc. Moisture or movement can affect lifespan.
Waterline Tile Source: Paddock Pools, Patios & Spas Inc., Aquatech Pools - Society of Profe 24. WALLS, CEILINGS, & FII Accoustical Ceiling Ceiling Suspension Ceramic Tile	s, Boral Bricks, ssional Builder <b>VISHES</b> Lifetime Lifetime Lifetime Lifetime	rs, Inyo Pool Products, Omega Pool Structures, Inc.
Waterline Tile Source: Paddock Pools, Patios & Spas Inc., Aquatech Pools - Society of Profe <b>24. WALLS, CEILINGS, &amp; FIR</b> Accoustical Ceiling Ceiling Suspension Ceramic Tile Standard Gypsum	s, Boral Bricks, ssional Builder <b>VISHES</b> Lifetime Lifetime Lifetime Lifetime	rs, Inyo Pool Products, Omega Pool Structures, Inc.
Waterline Tile Source: Paddock Pools, Patios & Spas nc., Aquatech Pools - Society of Profe 24. WALLS, CEILINGS, & FII Accoustical Ceiling Ceiling Suspension Ceramic Tile Standard Gypsum Source: Interceramicusa, United State 25. WINDOWS, SKYLIGHTS,	s, Boral Bricks, ssional Builder <b>VISHES</b> Lifetime Lifetime Lifetime Lifetime	rs, Inyo Pool Products, Omega Pool Structures, Inc.
Waterline Tile Source: Paddock Pools, Patios & Spas nc., Aquatech Pools - Society of Profe <b>24. WALLS, CEILINGS, &amp; FII</b> Accoustical Ceiling Ceiling Suspension Ceramic Tile Standard Gypsum Source: Interceramicusa, United State	s, Boral Bricks, ssional Builder <b>VISHES</b> Lifetime Lifetime Lifetime Lifetime	rs, Inyo Pool Products, Omega Pool Structures, Inc.
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Waterline Tile Source: Paddock Pools, Patios & Spas Inc., Aquatech Pools - Society of Profe <b>24. WALLS, CEILINGS, &amp; FIR</b> Accoustical Ceiling Ceiling Suspension Ceramic Tile Standard Gypsum Source: Interceramicusa, United State <b>25. WINDOWS, SKYLIGHTS,</b> Glass & Glazing Materials Window Glazing <u>Windows</u>	s, Boral Bricks, essional Builder VISHES Lifetime Lifetime Lifetime es Gypsum Co., & GLASS 10+	rs, Inyo Pool Products, Omega Pool Structures, Inc.
Waterline Tile Source: Paddock Pools, Patios & Spas Inc., Aquatech Pools - Society of Profe 24. WALLS, CEILINGS, & FIR Accoustical Ceiling Ceiling Suspension Ceramic Tile Standard Gypsum Source: Interceramicusa, United State 25. WINDOWS, SKYLIGHTS, Glass & Glazing Materials Window Glazing	s, Boral Bricks, ssional Builder VISHES Lifetime Lifetime Lifetime es Gypsum Co., & GLASS	rs, Inyo Pool Products, Omega Pool Structures, Inc.

Source: Polygal, Gallina USA, LLC, Allied Window

[Note: This report should be used as a general guideline only. None of the information in this report should be interpreted as a representation, warranty or guarantee regarding the life expectancy or performance of any individual product or product line. Readers should not make buying decisions and/or product selections based solely on the information contained in this report.]



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