

Life Expectancy Of Structural and Mechanical Systems And Components

The following chart details the predicted life expectancy of household materials and components.

Interior and exterior paints can last for 15 years or longer, however homeowners often paint more frequently. Surface preparation is likely the most important determiner of paint life expectancy.

ADHESIVES, CAULK AND PAINTS	YEAR
Caulking	5-10
Paint	7
Roofing Adhesives	15+

Appliance life expectancy depends to a great extent on the use it receives. Furthermore, consumers often replace appliances long before they become worn out due to changes in styling, technology and consumer preferences. Of a home's major appliances, gas ranges have the longest life expectancy.

APPLIANCES	YEARS
Air-Conditioners	8-15
Boilers	20-35
Compactors	6
Dehumidifiers	8
Dishwashers	9
Disposers, Food waste	12
Dryers	13
Exhaust Fans	10
Freezers	10-20
Furnaces	15-25
Gas Ovens	10-18
Heat Pumps	16
Humidifiers	8
Microwave Ovens	9
Range/Oven Hoods	14
Electric Ranges	13-15
Gas Ranges	15-17
Refrigerators	9-13
Washing Machine	5 -15
Water Heaters	10-11

BATHROOM	YEARS
Cast Iron Bathtub	50
Fiberglass Bathtub and Shower	10-15
Shower Door	25
Toilet	50

Kitchens are in the process of becoming larger and more elaborate, and together with the family room, modern kitchens now form the “great room.” Great rooms are a place to cook as well as a space where people gather to read, talk, eat, do homework, surf the Internet, and pay bills.

CABINETS & STORAGE	YEARS
Bath Cabinets	100+
Closet Shelves	100+
Entertainment Centers/Home Office	10
Garage/Laundry Cabinets	100+
Kitchen Cabinets	50
Medicine Cabinets	20+
Modular/Stock Manufacturing Type	50

Walls and ceilings last the full lifespan of the home.

CEILINGS, WALLS & FINISHES	YEARS
Acoustical Ceiling	100+
Ceiling Suspension	100+
Ceramic Tile	100+
Standard Gypsum	100+

Natural stone countertops, which are less expensive than they were just a few years ago, are becoming more popular and one can expect them to last a lifetime. Cultured marble countertops have a shorter life expectancy, however.

COUNTERTOPS	YEARS
Cultured Marble	20
Natural Stone	100+
Laminate Countertops	20 - 30
Tile	100+
Wood	100+

Decks are exposed to a wide range of conditions in different climates, from wind and hail in some areas to relatively consistent, dry weather, in others. Under ideal conditions, they have a life expectancy of about 20 years but they can fail much sooner.

DECKS	YEARS
Deck Planks	25
Wood	10-30

Exterior fiberglass, steel and wood doors will last as long as the house, while vinyl and screen doors have a shorter life expectancy. Closet doors may last a lifetime, but French doors will fail sooner.

DOORS	YEARS
Closet (Interior)	100+
Fiberglass (Exterior)	100+
Fire-Rated Steel (Exterior)	100+
French (Interior)	30-50
Screen (Exterior)	40
Vinyl (Exterior)	20

Wood (Exterior)	100+
Wood (Hollow Core Interior)	20 - 30
Wood (Solid Core Interior)	30 - 100+

Floor and roof trusses and laminated strand lumber are durable household components, and engineered trim may last 30 years.

ENGINEERED LUMBER	YEARS
Engineered Trim	30
Laminated Strand Lumber	100+
Laminated Veneer Lumber	80+
Trusses	100+

FIXTURES & FAUCETS	YEARS
Accessible/ADA Products	100+
Enamel Steel Kitchen Sinks	5-10
Faucets	15-20
Modified Acrylic Kitchen Sinks	50
Saunas/Steam Rooms	15-20
Shower Enclosures/Modules	50
Shower heads	100+
Soapstone Kitchen Sinks	100+
Toilets/Bidets	100+
Whirlpool Tubs	20-50

Natural wood floorings may last as long as the house. Marble, slate, and granite are also expected to last for about 100 years, but require more 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).

FLOORING	YEARS
All Wooden Floors	100+
Bamboo	100+
Brick Pavers	100+
Carpet	8-10
Concrete	50+
Engineered Wood	50+
Exotic Wood	100+
Granite	100+
Laminate	15-25
Linoleum	25
Marble	100+
Other Domestic Wood	100+
Slate	100
Terrazo	75+
Tile	75-100
Vinyl	25

Concrete and poured block footings and foundations will 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.

FOOTING & FOUNDATIONS	YEARS
Baseboard System	50
Bituminous Coating Waterproofing	10
Cast Iron Waste Pipe (Above Ground)	60+
Cast Iron Waste Pipe (Below ground)	50 - 60
Concrete Block	100+
Concrete Waste Pipe	100
Poured Footings and Foundations	100+
Pumps, Sumps, and Wells	5-12
Termite Proofing	12

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 also last a lifetime. Hardboard, softwood, and plywood last an average of 30 years, while OSB and particleboard are expected to last twice that long.

FRAMING & OTHER STRUCTURAL SYSTEMS	YEARS
Poured-Concrete Systems	100+
Structural Insulated Panels	100+
Timber Frame Homes	100+

Garage door openers are expected to last 10 to 15 years, and light inserts will last slightly longer.

GARAGES	YEARS
Garage Doors	20-25
Garage Door Openers	10-15
Light Inserts	20

Home technology systems have diverse 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.

HOME TECHNOLOGY	YEARS
Built-in Audio	20
Home Automation Systems	100+
Security Systems	5-10
Smoke/Heat Detectors	Less Than 10
Wireless Home Networks	50+

Heating, ventilation, and air conditioning systems require regular maintenance in order to work properly, but even well maintained systems only last 15 to 25 years. Furnaces, on average, last 15-20 years, heat pumps last 16 years, and air conditioning units last 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 may last 35 years but they are usually replaced before they fail due to technological improvements.

HVAC	YEARS
Air Conditioners	10-15
Air Quality Systems	15
Attic Fans	15 - 25
Boilers	13-21
Burners	10+
Central Air Conditioning Unite	12-15
Dampers	20+
Dehumidifiers	8
Diffusers, Grilles, and Registers	25
Ducting	10
DX, Water, Or Steam	20
Electric	15
Electric Radiant Heater	40
Furnaces	15-20
Heat Exchangers, shell + tube	10-15
Heat Pumps	16
Heat Recovery Ventilators	20
Hot Water or Steam Radiant Heater	40
Induction and Fan-Coil Units	10-15
Molded Insulation	100+
Shell and Tube	20
Thermostats	35
Ventilators	7
Water Heaters	20+

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

INSULATION & INFILTRATION BARRIERS	YEARS
Batts/Rolls	100+
Cellulose	100+
Fiberglass	100+
Foam	100+
House Wrap	100+
Loose Fill	100+

Ladders are expected to last a lifetime, but life expectancy of lifts is significantly shorter.

JOB SITE EQUIPMENT	YEARS
Ladders	100+
Lifts	8-10

Copper plated wiring, copper clad aluminum, and bare copper wiring are expected to last a lifetime, whereas electrical accessories and lighting controls may need to be replaced after 10 years.

LIGHTING & ELECTRICAL	YEARS
Accessories	10+
Bare Copper	100+
Copper Clad Aluminum	100+
Copper Plated	100+
Lighting Controls	10+

Masonry is one of the most enduring household components. Fireplaces, chimneys, and brick veneers can last the lifetime of a home.

MASONRY & CONCRETE	YEARS
Brick	100+
Sealer Caulking	2-20
Stone	100+
Veneer	100+

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

MOLDING & MILLWORK	YEARS
Attic Stairs	100+
Custom Millwork	100+
Prebuilt Stairs	100+
Stair Parts	100+
Stairs, Circular & Spiral	100+

Lifetime of any wood product depend on level of moisture intrusion.

PANELS	YEARS
Flooring Underlayment	25
Hardboard	30
Particleboard	60
Plywood	60
Softwood	30
Oriented-Strand Board	60
Wall Panels	100+

The life of a roof depends on local weather conditions, building and design, material quality, and adequate maintenance. Slate, copper, and clay/concrete roofs have the longest life expectancy while roofs made of asphalt shingles, fiber cement or wood shakes will fail sooner.

ROOFING	YEARS
Aluminum Coating	3-7
Asphalt Shingles (3 - tab)	20
Asphalt (Architectural)	30
BUR (Built-up Roof)	30
Clay/Concrete	100+
Coal and Tar	30
Copper	100+

EPDM (Ethylene Propylene Diene Monomer) Rubber	15 - 25
Fiber Cement	25
Metal	40 - 50
Modified Bitumen	20
Simulated Slate	50
Slate	50+
TPO	7 - 20
Wood	30

Outside materials typically last a lifetime. Brick, vinyl, engineered wood, stone (both natural and manufactured), and fiber cement will last as long the house. 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.

SIDING & ACCESSORIES	YEARS
Aluminum Downspouts	30
Aluminum Gutters	20
Aluminum/Interior Shutters	10+
Brick	100+
Copper Downspouts	100
Copper Gutters	50+
Engineered Wood	100+
Fiber Cement	100+
Galvanized Steel Gutters/Downspouts	20
Manufactured Stone	100+
Soffits/Fascias	50
Stone	100+
Stucco	50 - 100
Trim	25
Vinyl	100+
Wood/Exterior Shutters	20
Wood/Interior Shutters	15+

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 as long as the house, and asphalt driveways should last between 15 and 20 years. Tennis courts can last a lifetime if they are recoated; most coatings last 12 to 15 years. The concrete shell of a swimming pool is expected to last more than 25 years, but the interior plaster and tile have life expectancies of about 10 to 25 years.

SITE & LANDSCAPING	YEARS
American Red Clay	100+
Asphalt Driveway	15-20
Asphalt with Acrylic Coating or Cushion	12-15
Brick & Concrete Patios	15-25
Clay Paving	100+

Cleaning Equipment (Swimming Pool)	7-10
Coating	5-7
Concrete Shell (Swimming Pool)	25+
Concrete Walks	40- 50
Controllers	15
Decking (Swimming Pool)	15
Fast-Dry Green Tennis Court	100+
Fast-Dry with Subsurface	100+
Gravel Walks	4-6
Interior Finish (Swimming Pool)	10-35
Polyvinyl Fences	100+
Sprinklers	10-14
Underground PVC Piping	60+
Valves	20
Waterline Tile (Swimming Pool)	10

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

SKYLIGHTS & WINDOWS	YEARS
Aluminum/Aluminum Clad	15-20
Window Glazing	10+
Vinyl Windows	20 - 40
Wood	30+

Note: Life expectancy varies with usage, weather, installation, maintenance and quality of materials. Items listed as lasting 100+ years, especially those that open and close, often fail prematurely due to misuse or overuse. This list should be used only as a general guideline, not as a guarantee or warranty regarding the performance or life expectancy of any produce.