

COLUMN FOR APRIL 22, 2006.

HEADLINE; DO I NEED NEW SHINGLES?

Q: We were told when we bought our house two years ago that the shingles were 10 years old. This spring I noticed they seem to be curling and have some bare spots. We were told these were 20-year shingles. How do you tell how old your roof is and when it is ready for new shingles? Why don't shingles last the 20 years they advertise?

A: Evaluating the age of conventional asphalt shingles is not a science and there are many factors that affect the life span of shingles. One quick method is the "wooden pencil" estimate. Standard Three Tab Shingles have two slots in them. When the shingles are new this slot is approximately 1/8 to 3/16 inch wide. If you take a wooden pencil and it will lay in the slot cleanly then the shingles are about ten years old. If the pencil fits with about an 1/8 inch of space, these are likely close to 14-15 years old in aging. If the slot is 1/2-3/4 inch wide then these shingles are usually ready for replacement. Make sure you use the slot in the shingle and not where they butt together, this will be wider, right from new. There are a number of other factors that can affect the aging of standard shingles. Shingles are layers of felt that have been coated with an asphalt solution. These layers of felt are then laminated together. The top covering is a granular material that is mechanically compressed into the shingle. This granular layer protects the felt portion from the effects of sunlight. As this layer weathers and ages it begins to lose its integrity this causes the granular layer to fail. As the granular layer exposes the felt, the shingles will then begin to dry out and become brittle. The lead edges of the shingles are usually the first to become exposed. Some shingles will crack where they are layered over the previous shingle. If the shingles are curling under, it is generally old age. If the shingles are curling up, this is often a sign of a lack of ventilation, more on this later. If you notice a lot of this granular material in your eavetrough, this is usually a sign the shingles are weathering.

The question as to why shingles don't last their advertised life span is one that I get repeatedly. There are numerous factors that affect the life span of shingles. One myth is that black shingles wear out a lot faster than a lighter colour. Black does contain the heat, but they don't wear out substantially quicker than a lighter colour. The position of your home and its exposure to the sun is one of the largest age factors. A home where a large portion of the roof faces south will weather faster on that side. The west exposure is next on the aging list. The pitch of your roof is also a contributing factor. A low slope roof will age 2-3 years sooner than one with a steep pitch. If you have more than one layer of shingles this will also greatly reduce the life span. It is rare that shingles fail due to manufacturer's defect. The larger shingle companies like IKO and Emco are acutely aware of the publicity that goes with a major production failure. In my 30 years of construction and now building inspection for the past 7 years I can only remember five cases where the shingles had actually failed from manufacturer's defects. For years we thought that the extremes in our climate was the largest aging factor. This opinion changed a few years ago. Today we know that the lack of ventilation is probably the largest contributing factor to premature shingle wear. In an ideal world the temperature in your attic should be the same as the outdoors. In actual practice this is rarely attainable. As we added more insulation to attics, the soffit areas were often filled and this blocked the airflow thru the attic. Older homes with wooden soffits are now covered in aluminium and the few vents that were present are reduced in effectiveness. Rarely was the wood soffit taken down, even though this is the right way to install aluminium soffit, from a ventilation perspective. I have been in attics during the summer where the temperatures were well above 100 F. This is slowly "cooking" the shingles from the inside out. Lack of actual vents in the roof is a common issue. The use of turbines in older homes or where the soffits are blocked is a good idea. Unfortunately I often see a turbine installed and the standard vents, called mushroom vents are still in place. All this does is short cycle the vented air thru the turbine. You should use one or the other, not both.

There are numerous kinds of shingles on the market today however the majority are still the standard asphalt-felt style. 20 year shingles commonly don't last much longer than 15-17 years and 25-year shingles make it to

the 20-22 year range. When you factor in the all the variables, climate, sun, position of the home and ventilation it is easy to see where the average life span of shingles is arrived at and how from one home to the next can vary considerably in aging.

Last week I asked what “clinch meant. The answer was A) a term for bending over nails. Oriented Strand Board (OSB) is manufactured sheeting that is made up of long cross-laminated strips of wood. It has taken over from plywood in most home construction. When was OSB invented A) 1994 B) 1989 C) 1978 The answer next week.

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