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ASPHALT SHINGLES - ORGANIC OR GLASS?

If, like most Canadians, you have decided to roof your home with asphalt shingles, you may know that there are two different "types" to choose from. These two types are commonly known as "organic" and "glass". These names relate to the type of fibre used to make the base reinforcing fabric upon which the shingle is constructed. Organic shingles are made on a thick felt of wood and other cellulose fibres. Glass shingles are made on a mat of non-woven glass fibres, which are held together with a water-insoluble binder. Both shingle types contain asphalt, are covered with mineral granules and are available in a wide variety of product weights, styles and colours.

Organic shingles:

- Have many decades of proven performance on Canadian homes.
- Are softer and easier to work with than glass shingles in cold temperature applications.
- Contain more asphalt and nearly always use a heavier weight reinforcement than glass shingles of similar weight.
- Absorb roof deck stresses better and are more tear-resistant than glass shingles.
- Are typically thicker than glass shingles and therefore hide minor imperfections in the roof deck or the old shingle layer.

Glass shingles:

- Are more resistant to heat, which may cause blisters to form on softer organic shingles on extremely hot roofs.
- Require the installation of an asphalt saturated felt underlayment.
- Are more resistant to curling, which can happen with organic shingles after many years on the roof.
- Roof assemblies with glass shingles have a higher fire resistance rating than roof assemblies with organic shingles.

Industry standards exist for both shingle types. CSA International specification A123.1: *"Asphalt Shingles Made from Organic Felt and Surfaced with Mineral Granules"* exists for organic shingles, and CSA International specification A123.5: *"Asphalt Shingles Made from Glass Felt and Surfaced with Mineral Granules"* exist for glass shingles. These specifications include requirements for minimum product weights and strengths, and are referenced in the national and provincial building codes. Homeowners should ensure that the shingles used on their roof are produced and installed to conform to these nationally recognized product standards.

Organic shingles continue to be the most commonly used asphalt shingle in Canada, but glass shingles are also available. If you have a well-ventilated, solidly constructed roof deck, and the shingle roof system is properly applied according to good roofing practices and the manufacturer's application instructions, generally both shingle types will perform well.

[\[return to listing\]](#)

Canadian Asphalt Shingle Manufacturers' Association