



**KNOW THE GOOD AND
THE BAD OF DIFFERENT
ROOF SYSTEMS**



SCHEDULE AN INSPECTION

TOLL FREE: 800-643-5731 • KEARNEY: 308-234-6685
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Pros and Cons of Roofing Systems:

Every roof system has its pros and cons. Normally, a roof is only as good as the applicator. The best roofing products in the hands of a poor applicator will produce a poor result. If you give the worst roofing products to the best applicator, you will only get as good a result as the product can perform. There are four main categories of roofs used in the Midwest.

Single Ply Systems

There are three single ply sheet “chemistries” that make up what is called the “single ply market”.

- **EPDM (Ethylene Propylene Diene Monomer)** in layman’s terms is called a rubber roof.
- **PVC (Polyvinyl Chloride)** sheet systems are typically white or tan in color and are usually fabric reinforced to make them stronger than EPDM roofing.
- **TPO (Thermoplastic Olefin)** is a relative newcomer to the single-ply market. These are also fabric reinforced sheets.

These roof systems are designed to work in one of three ways.

- **Ballasted** is a term used for anything that is used to hold down the single ply (usually river rock). The rock is applied at weights ranging from 8 to 12 pounds per square foot depending on building codes.
- **Mechanically Fastening** involves screwing down insulation board and rubber sheet with fasteners and plates.
- **Fully Adhered** involves gluing the single ply sheet in place with an adhesive.



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Built Up Roof (BUR) Roof Systems

This roof system use tar, felt paper, and possibly one or more of the following: cap sheet, rock, or insulation board to make up the roofing system.

- **Smooth BUR** is tar in conjunction with usually 3-5 layers of felt paper to make up the roof system.
- **Rock BUR** is the same as above, except the final coat rock (usually pea gravel) is cast into the final flood coat of tar.
- **Torch Down** systems usually go over a smooth BUR roof or insulation board. These roofs have a cap sheet that looks granulated and is either applied with a torch or hot tar.

Metal Roof Systems

Metal roofs use metal crimped in various designs to make a roof system. There are two main types of metal roof systems

- **Mechanically Fastened** is where the metal is fastened to the structure of the building with fasteners.
- **Standing Seam** is where the metal is attached to the structure of the building with a clip and free floats.



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Spray in Place Polyurethane Foam (SPF)

SPF uses two chemicals to make a plastic which is rigid yet flexible. Most SPF roofs have a coating put over the SPF to protect it from sunlight and the elements. There are three main types of coatings.

- **Acrylic** coatings are water based and dry like rubber.
- **Urethane** coatings are solvent based and dry like rubber. These coatings are more resistant to hail.
- **Silicone** coatings are solvent based and dry like rubber. These coatings are more pond resistant.

Single Ply and BUR Roof Systems

Depending on the roof or sheet chemistry, these roofs either shrink or get brittle over time. When they wear out, they must be torn off and replaced with another roof system. This causes roofing material to go to the landfill and increases the cost of the new roof system. Most of these roof systems use a fastener, which makes a hole in the decking material of the roof that they go over. These holes create a place for water to leak out from if that roof system gets hailed on or damaged for some reason. Most of these roofing systems are replaced every 10-20 years.



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SPF and Coating

These systems, in general, go over other roof systems. By going over another roof system, the old roof is renewed and made better. In general, SPF roof systems do not use fasteners. SPF roof systems are seamless and increase the R-Value of the roof. By being seamless, the chance of water getting into the building, even if the roof system is hit by hail, significantly decreases. The increased R-Value pays for the new roof over time through energy savings. Not to mention, the old roof doesn't have to be removed and money is saved from roofing materials not going to the landfill.

Coatings Directly Over Other Roof Systems

A lot of roofs can have coating applied directly over the existing roof with no removal or minimal removal of the existing roof. By doing this, the roof usually goes from black to white, which saves cooling cost. By applying directly over the old roof, money is saved from not tearing the old roof off as well as from the old roofing material not going to the landfill. Not to mention, coating over existing roofs is cheaper than replacing them with the same roof again.