

Roofing Materials at a Glance

ROOF TYPE	WHAT TO CONSIDER
Built-up roofing (BUR)	Tough and puncture-resistant because of the multiple plies used.
	Creates a continuous layer.
	Some asphalt products have to be heated for application. Hot-applied BUR shouldn't be installed in cold or wet weather.
	Some installation processes involve fumes, which could pose a problem for occupied buildings.
Single-ply membranes	Asphalt is normally dark-colored – if you need a cool roof, look into coatings, membranes or light-colored ballast.
	Many types of membranes that include different substances to achieve certain physical properties.
	Usually installed in one layer.
	Flexible and UV-resistant.
Modified bitumen	Normally not compatible with other roofing systems.
	Several layers, including base sheets or plies, modified bitumen membranes and surfacing.
	Durable and flexible.
	Some types require welding with a torch, which can pose a fire risk. Flame- and VOC-free versions are available.
Metal panels	Often black, but surfacing may be available in cool/reflective colors.
	Long lifetime.
	Available in virtually any color.
	Designed to allow thermal movement when metal expands and contracts.
Spray polyurethane foam	High seams provide watertightness and wind uplift.
	Combines a layer of spray foam insulation with a protective coating or membrane.
	Punctures typically don't penetrate the full thickness of the foam.
	Can fill gaps in the existing roof/substrate.
	Application requires a professional who understands the chemical reaction that produces the foam.
	Don't install during cold, windy or rainy weather.