

## SBS vs. APP - What's the difference?

If you are considering a change from torching APP-modified bitumen roof membranes to torching SBS-modified bitumen roof membranes, taking a moment to understand the differences between the two materials will be helpful.

The basic difference between SBS and APP is that APP-modified bitumen is a "plastic asphalt" and SBS-modified bitumen is an "elastic asphalt." Why? Because APP-modified bitumen is modified with plastic in the form of APP (atactic polypropylene), and SBS-modified bitumen is modified with synthetic rubber in the form of SBS (styrene-butadiene-styrene).

When torching APP roofing membranes, the bitumen begins to flow like candle wax when it reaches temperatures above 300°F. The molten APP-modified bitumen behaves somewhat like hot mopping asphalt, and will flow. On the other hand, SBS-modified bitumen acts differently. While its melting point is only slightly lower than that of APP, it doesn't have the same flow characteristics as APP-modified bitumen. Warm SBS gets very sticky----a factor that increases as additional heat is applied. It is like a goeey paste when it is ready for application. If the heat source remains in contact with the SBS blend, it will eventually begin to flow and be more liquid. By this time, however, it has been overheated.

Because properly heated SBS-modified bitumen doesn't exhibit a liquid flow, the tendency on the part of the applicator is to give the SBS membrane more heat for a longer period of time than is really necessary. With Tradesman SBS-modified bitumen roofing materials, determining when the sheet is properly heated is simplified. When the plastic burn-off sheet is melted away, and the SBS-modified membrane has a goeey consistency, the sheet is ready to be rolled into place. Proper torching is easy to check by back-rolling and looking for full adhesion to the substrate.

The result...Tradesman Brand SBS-modified bitumen roof membranes take less heat to install than APP... so they go down quicker, making the job go smoother and faster, and making you more money.

### SBS and APP Comparison Highlights

COMPARISON	SBS	APP
Bitumen Modifier Type	Synthetic Rubber	Plastic
Low Temperature Flexibility	-22°F to -5°F	14°F to 32°F
Softening Point	230°F to 270°F	245°F to 300°F
Elongation with Full Recovery	>1000%	5 - 10%
Serviceability Range	-20°F to 270°F	15°F to 300°F

For more information on Tradesman Brand products, call 1-866-389-8682.