

Boss SpineSeal® is a patented* expansion and control joint system for sealing gaps in vertical, horizontal and overhead structures. SpineSeal delivers fast installation times, high performance sound and moisture barriers and weather seals, and reduced environmental and OH&S impacts.

How does it work?

Boss SpineSeal is an extruded silicone rubber “fin” shaped seal, which is folded over a rigid backbone and then driven into the gap between panels. The rigid polymer “spine” forces the SpineSeal into the gap and the “fins” on the silicone seal provide several layers of protection and retention.

This easy to handle seal is installed quickly in continuous runs. You can install it vertically or horizontally in wall panels, or from above or below in overhead and floor structures, to provide an instant high quality finish, which can be colour coded to suit the design of the structure.

Cost benefits

This Boss engineering solution delivers significant benefits to your project:

Easy application

Light weight SpineSeal is easily installed by one worker using a simple rubber mallet.

Fast installation

Install SpineSeal seamlessly in minutes in virtually any weather conditions.

Clean and safe installation

SpineSeal improves OH&S and environmental performance by eliminating adhesives, chemicals, caulking, and their messy containers and clean up.

No preparatory work

The SpineSeal design allows for a wide range of variations in:

- The surface finish and quality of the panel gap (it seals rough concrete gap edges or smooth metal surfaces).
- Gap widths between the installed panels (ranging from 5mm to 80mm).

Economical labour costs

Non-skilled labour can install SpineSeal following a short training session.

Excellent sound and weather insulation seal

Each “fin” in the SpineSeal provides an extra air lock layer to maximise performance.

Flexibility and retainability

SpineSeal adjusts to gap variations caused by expansion, contraction or subsidence of the structure, while remaining locked in place.

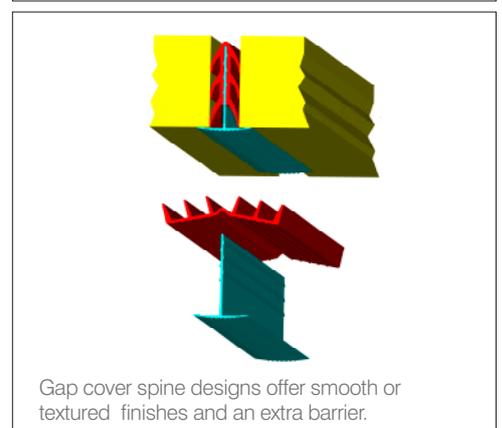
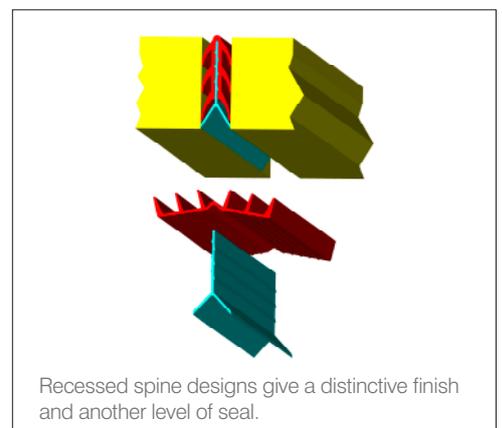
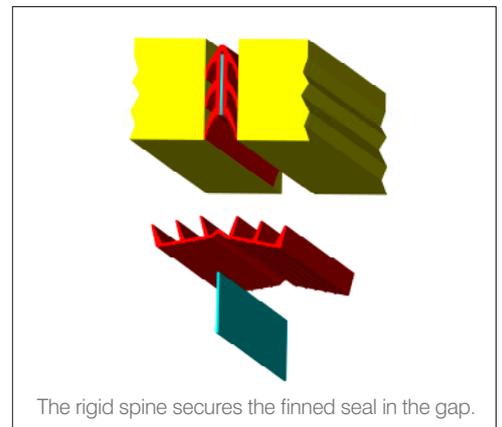
Long life

The polymers used can be engineered specifically for the climatic exposure predicted for each application, including high UV levels, moist or dry conditions.

Quality Control

The SpineSeal design and its ease of installation minimises human error and simplifies quality control auditing.

* Patent pending



Sealing the Eastlink freeway sound barriers

In collaboration with Thiess John Holland, Boss developed a SpineSeal design for the EastLink freeway in Melbourne, Australia. One of the largest road projects in the world, this 45 kilometre freeway features state of the art safety and environmental elements, including a range of purpose built sound barriers.

Boss SpineSeal® cuts costs

Installation process

The key to this new seal technology is speed of installation. You can pre-cut the seals to required lengths to make fitting a smooth, simple, one step process.

Because no surface preparation is required and the flexible seal automatically adapts to varying panel gap openings, you can install it to a high quality level of finish using unskilled labour and a simple rubber mallet.

Significant advantages over caulk seals include the ability to install Boss SpineSeal in virtually any weather conditions and the elimination of messy adhesives with their complex, time critical and skill driven mixing and application processes, and clean up.

Polymer materials

Boss can also engineer the SpineSeal in a variety of materials tailored to the seal performance level and aesthetic appearance you require. Attractive colours and consistent surface finishes can be part of your seal design.

Your seal life expectancy can be designed into the polymer material to help control costs. Unlike caulking materials, weathering tests on silicone rubber showed there was no deterioration (cracking or shrinkage) after 30 years of exposure.

Applications

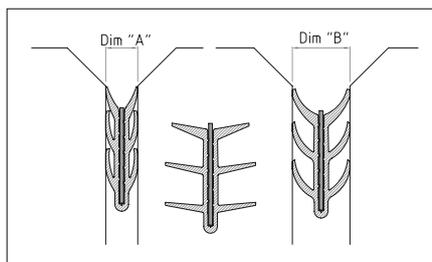
Boss SpineSeal is suitable for a wide range of applications where sound and moisture barriers, and weather or fire rated seals are required. It provides long life seals for components made from virtually any material, including concrete, metal and plastic. SpineSeal can be engineered from polymers that perform in any environment, such as extreme weather, or in water, mud and chemicals.

Long life materials and the permanent SpineSeal grip delivers cost efficient seal performance for buildings, bridges, marinas and in road construction. Boss SpineSeal is especially suited to filling gaps in overhead panels, which are difficult and costly to seal with traditional methods.

Boss SpineSeal® standard range

SpineSeal is available in a range of standard sizes, or we can design a seal to suit your application.

Spine Seal Part No.	Total Movement (mm)	Gap Width (mm)	
		Min "A"	Max "B"
5/10	5	5	10
10/22	12	10	22
15/30	15	15	30
15/40	25	15	40
20/45	25	20	45
20/50	30	20	50
30/60	30	30	60
40/80	40	40	80



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The ELASTOSIL R® silicone rubber used in the Boss SpineSeal on the EastLink freeway sound barriers is UV, heat, ozone and weathering resistant. Proven in tests, including climate DIN50018-SW2.0S and ozone DIN53509-1, it is designed to deliver life of 30-plus years.



Boss SpineSeal – installed in sound barriers on the EastLink freeway – is an extruded rubber fin shaped seal, which is folded over a rigid backbone, and then driven into the gap using simple hand tools.