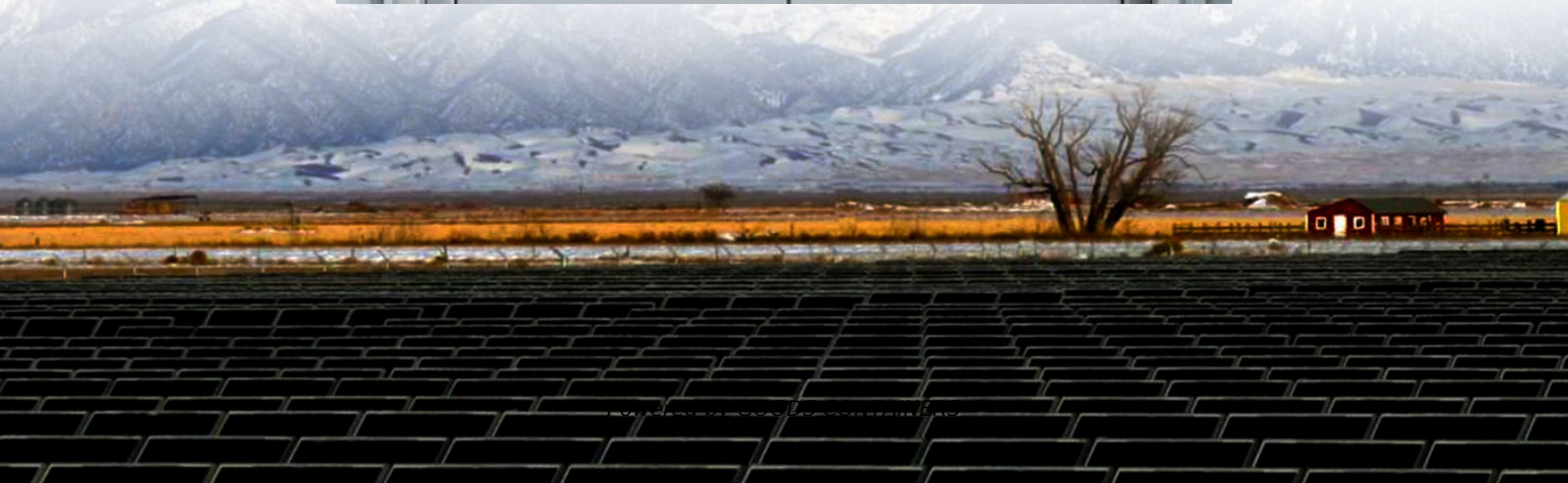


European and American double glass components middle pressure edge pressure





Overview

What effect does a glass pane have on the edge seal?

The effect that the inwards and outwards bulging of the glass panes exerts on the edge seal varies with the dimensions of the IGU. The induced stress is highest for small IGUs or units with high aspect ratio (one long side and one short side) as well as units with wide inter-pane space.

What is an elastomerically sealed insulating glass unit (IGU)?

The modern elastomerically sealed insulating glass unit (IGU) was invented in Germany during the 1940's. A wide range of products from the newly emergent plastics industry was evaluated as possible IGU edge-seals. Using thioplasts produced on a polysulfide base, it was eventually possible to develop an organically sealed IGU.

How does edge-seal affect service life & performance of an IGU?

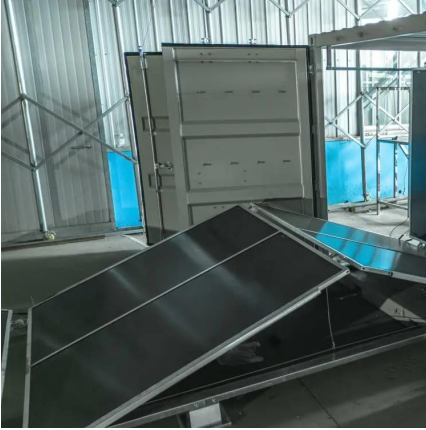
Thus, the quality of edge-seal strongly influences the service-life and performance of an IGU. The key function of an insulating glass unit (IGU) edge-seal system is to provide a gas- and moisture-barrier and to structurally bond two or more panes of glass together.

What is a dual edge seal system?

This can be achieved best with a dual edge-seal system, where the primary, polyisobutylene-based seal provides the barrier function, and the elastomeric secondary seal ensures the structural integrity of the IGU under all relevant loads, such as occur during manufacture, transportation, installation, and service (see Figure 2).



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