How it began
The US experienced an astonishing housing boom these last 25 years, accompanied by an equally me-teoric rise in home prices. That rising cost created a demand from builders and buyers for cheaper windows—typically 5-10% of the cost of a new home. Manufacturers responded by building a low-quality, “builder grade” window utilizing a new “Intercept” spacer. Nearly every development built since 1998 has these windows. You see them every day on the shelves of your local Home Improve-ment store. Requesting a “standard” spacer in the windows is considered an upgrade and costs extra.

Anatomy of a cheap window
- Thin glass: 3/32 instead of the standard 1/8th
- U-shaped channel of low-grade steel that rusts when IGU fails
- “Desiccant” caulk lining that sags or cracks in summer heat
- Vinyl framing that expands and contracts up to 3/8” daily
- Average lifespan of 5-10 years

A better choice
Sunshine is the biggest “cause” of window failure, and vinyl expands and contracts more than any other window framing material. Thermal expansion puts great stress on IGU’s; not a good thing for window longevity. Whenever possible, choose a different framing material (fiberglass is best) and upgrade to a better IGU. Standard or SuperSpacer spacers are far superior to Intercept spacers.

Verdict
If you have Intercept spacers, your windows will begin failing in five to eight years. If you are the original owner your warranty may still be in effect. If not, we can at least replace the glass IGU’s in your “builder grade” windows with high quality units that will last many years. Ask us for a free quote!

Definitions:
Spacer—metal tubing or other material sandwiched around the perimeter of a IGU, separating the two panes of glass.
IGU—Integrated Glass Unit, consisting of two panes of glass and a spacer, all held together by a butyl sealant.
Double Trouble: Vinyl Windows with Intercept Spacers

Left: Vinyl softens and begins to warp at 165 degrees. This is why you never see vinyl frames in dark colors—only white or beige. A hot summer day and a west facing window with the inside drapes closed easily created enough heat to warp this window frame on a six year old home in Snoqualmie WA.

At right, you see the effects of a vinyl window frame expanding and contracting. The frame has expanded enough to crack the siding and leave gaps around the window frame which can allow water penetration into the home.

A six foot wide vinyl window frame can expand and contract up to 3/8 of an inch in direct sunlight on a hot summer day.

Below: Removing a failed IGU with Intercept spacers. This home was five years old and already had 22 failed units that needed replacing.

Left: Examples of heat damage in Intercept spacers in Vinyl frames. Depending on what type of “desiccant caulk matrix” that was used by the manufacturer, the caulk in the inner lining of the Intercept spacer either dries up and flakes to the bottom of the IGU, or it softens and sags to the bottom.