Solar Expansion / Thermal Twisting

Thermally Broken Aluminum Windows & Doors
Aluminum extrusions quickly conduct cold temperatures and should be thermally broken in extreme cold climates. “Thermal break” is the addition of a non-conductive material between the interior and exterior of each extrusion. If done properly, most of the cold energy will not transfer to the interior surfaces of the window frame.

Cold Climate vs. Warm Climate
Thermal break material was added as a cold/frost inhibitor but NOT as a heat inhibitor. Though the ‘break’ slows down heat transfer, it will be felt on the interior surfaces as extrusion cavities are warmed. Similarly, some door and window hardware may conduct heat to the interior surfaces.

Sun Exposure
When thermally broken aluminum experiences a rapid increase in temperature, expansion occurs. This temporary swelling may affect the operation of some products, and manifest in ways such as:

- Bowed door verticals
- Stiffer operation of multipoint hardware
- Windows sticking slightly before opening

Warranty & Design
Fleetwood products are designed to accommodate environmental fluctuations and the warranty is not affected. However, it is highly recommended to discuss each potential issue with the Authorized Dealer to ensure the right product is selected for each opening.