Foam-Control EPS is the winner.
Control, Not Compromise.
**ISO, a COMPROMISE in real world applications**

**Environment and Performance:** When freshly manufactured, ISO has a reasonably high R-value, but it loses blowing agents so it loses R-value. Due to R-value loss, ISO manufacturers won’t give warranties for their published R-values. Not so with EPS, no R-value loss ever and warranted for 100% of original R-value. ISO in any of its forms, uses and applications is a thermoset material, it can’t be recycled. EPS is a thermal plastic and millions of pounds of EPS are reused or recycled every year.

**Roofing:** ISO costs more. ISO loses R-value over time and doesn’t warrant the R-value for their product. EPS never loses original R-value. 30 year old “in-service” EPS has been tested to show that it has the same R-value as the day it was installed and is warranted for 100% original R-value for 20 years. EPS is easier to fabricate for taper systems and is thicker so it can be applied in one layer which reduces labor and time.

**Perimeter and Underslab:** ISO used in ground contact absorbs excessive moisture and it can’t be protected against termite infestation so it should not be used in Perimeter and Underslab applications. EPS resists moisture, while keeping all its structural properties and can be treated to resist termite infestation, which equals success in Perimeter and Underslab applications.

**SIPs:** ISO core material is much more expensive. When freshly manufactured, ISO has a reasonably high R-value, but it loses blowing agents so it loses R-value. ISO has had post manufactured dimensional stability problems. ISO is not protected from termite infestation. EPS costs less, maintains R-value, gives optimum physical strength, and can be treated to protect against termite infestation - EPS cores for SIPs are the clear winner!

**Exterior Wall Insulation:** ISO board facings cause difficulty for adhering exterior finish coatings and cannot easily be prepared to achieve proper flatness. Faced ISO performs like a vapor blocker while EPS allows for controlled moisture transmission. EPS can be fabricated for optimum performance with one-coat and hard coat stucco systems and siding underlayment applications, and no matter what the exterior insulation application, EPS always is more cost effective.