

What is the K-Factor for Insulation Snake® product?

The Original Snake product is 3-1/2” thick (89mm) with a certifiable R-12 rating, thus giving the RSI at 2.1. The new product is 4-1/2” thick with a certifiable R-14 rating.

K-Factor = 0.292 btu p/inch /sq. foot in Fahrenheit.

<i>Test for Insulation made by CertainTeed</i>	<i>Comments</i>	<i>Applicable Code</i>
Fire Resistance Classification	Max flame spread index of 25 Max Smoke spread index of 50	UL-723 ASTM E84 NFPA 255; Can/ULC S102-M88 Non-Combustible according ASTM 136
Water Vapor Absorption	No greater than 5% per weight	Code: ASTM 1104
Fungi Resistance:	Pass Test.	Code: ASTM C1338C
Insect Resistance	100% mortality Rate	
Corrosiveness:	Meets requirements for Steel, Copper and Aluminum	Code: ASTM C665
Flash Point:	600 F / or 300 C	
Melting Point of Polyurethane	202F or 96C	
Extinguishing method:	Dry Chemical, Carbon Dioxide or Water	
Specific Gravity of Insulation:	1.22	
Hazardous Combustion By- Products:	Oxides of Nitrogen and Carbon.	

UV Data

Normal (interior) Polyurethane does not have these additives. Some protection is created simply from the film, but not much. Exterior PU's should have Hindered Amine Light Stabilizers (HALS) coupled with UV blockers called Tetratriazoles (If I can remember the name correctly). These additives can be added to any clear film finish - varnish, PU, Acrylic Urethane etc. but only for those designated "exterior", although some "exterior" finishes may not have these additives - they are expensive, and cheapo companies probably have very little loading of them. HALS are free-radical absorbers. Free radicals are sheared electrons that come off of a polymers molecular chains due to bombardment of UV light from sun. Enough electrons lost, and the chains breakdown. UV Blockers (tetratriazoles) are non-pigment (clear) blockers of the actual UV light. The best blockers of UV light is pigment itself, white being best, but in clearcoats, a little higher-tech additive is required (can't remember how it worked, but it blocked UV quite well).

Both types of additives are meant to be used together.

I used them in 1-1/2% to 2-1/2% loadings and that is a lot - which is why certain clears are more expensive. You still need an elastic formula though, for longevity in a clear. These additives are great for protecting epoxy from blush, which is why you need to overcoat epoxy with marine varnish.

Cya - JB