CRANE
Composites

information
65141

HEAT BUILD-UP INFORMATION FOR TRANSLUCENT ROOF PANELS

Composite translucent roofs have been in use since 1990. Heat build-up can be a concern for fleets that transport products that are sensitive to heat.

Crane Composites documented heat build-up in trailers with five different roof materials. XTRA Lease assisted in the testing of these products. Crane tested five trailers, each with a different roof panel material at the XTRA Lease facility in Phoenix, Arizona.

TESTING

The tests were conducted over a four day period. Continuous temperature and relative humidity readings were obtained by using three data loggers (DL), each positioned 16' from the nose of the trailers. The average daily temperature reached a maximum of 64° in the shade and 86° in the sun. The trailers were positioned appropriately 6' apart from one another with rear doors facing south. The roof specification on each trailer was as follows:

PRODUCT	DATE OF MANUFACTURE
Kemlite ETR 10% Light Transmission, 0.075" Thick	11/2007
Aluminum Roof, 0.040" Thick	11/2007
Aged Aluminum Roof, 0.040" Thick	02/1996

ROOF DESCRIPTION	Maximum Temperature Interior Roof Surface	Maximum Temperature Inside Trailer 2' from Ceiling	Maximum Temperature Inside Trailer 6' from Ceiling
Crane Translucent Roof	**76.7°**	**74.4°**	**71.8°**
Aluminum Roof	**88.4°**	**74.6°**	**71.1°**
Aged Aluminum Roof	**99.5°**	**73.3°**	**70.0°**

SUMMARY

- The 10% ETR roof panel generated an equal interior temperature as the aluminum roof.
- The 10% ETR roof panels allow better visibility in the trailer compared to the aluminum roof.
- Aluminum roofs generate the highest allowed surface temperature.

Crane Translucent Roof	Aluminum Roof	Aged Aluminum Roof
		

A global leading provider of resilient wall and ceiling coverings. Kemlite® was established in 1954 and the company changed names to Crane Composites in 2007. Crane Composites is headquartered in Channahon, IL and all our products are manufactured in the United States. We work with hundreds of distributors, ensuring our products are easily accessible and readily available to our customers.