

EXTENDING THE LIFE OF YOUR TRAILER



FROM THE INSIDE OUT



THERMOGUARD
from Great Dane

PunctureGuard

extending the life of your trailer



PunctureGuard liners and scuffbands offer lasting benefits that no other material can.

Designed to protect a trailer's interior walls from everyday abuses, PunctureGuard scuffbands and wall liners are incredibly thin, yet nearly impossible to penetrate. PunctureGuard provides the extra protection that will extend the life of your trailer, load after load, year after year.

ABRASION RESISTANT

PunctureGuard helps increase a trailer's resale value by helping to preserve its original appearance on the inside.

Unlike FRP liners, PunctureGuard needs no surface treatment to resist stain and abrasion. Alternatively, PunctureGuard's uniform surface-to-core polypropylene and glass composite structure remains scuff and scratch resistant throughout its thickness.

DAMAGE CONTROL

PunctureGuard provides the most impact resistance available in trailer linings.

Because it is a thermoplastic, PunctureGuard remains pliant over time. Impacts from loading equipment will not cause the material to set or curl away from the walls. Fasteners remain in place and secure.

APPEARANCE

PunctureGuard enhances the appearance of a trailer's interior.

The finish is glossy with a consistently smoother texture than that of FRP liners.

EASY TO CLEAN

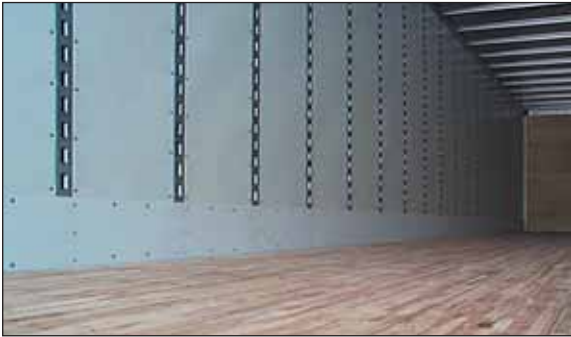
PunctureGuard makes it easier to keep a bright, clean interior.

PunctureGuard is not composed of fillers such as glass spheres or clay that, when abraded, will confine dirt and other contaminants that make cleaning difficult.

EASE OF REPAIR

PunctureGuard significantly reduces maintenance costs.

Thermoplastics can be reheated and reformed, unlike thermosets, giving them superior repair qualities. Common plastic welders can be used in PunctureGuard repairs, and no rivets are needed. In the event the material is damaged, such repairs can be done with better cosmetic appearances than simply applying riveted patches. Material costs are reduced along with downtime associated with lengthy repairs and replacements of trailer walls using other materials.



Trailer protected with PunctureGuard wall liner and scuffband.



Typical interior damage from daily loading and unloading

The ONLY LINER that helps maintain the thermal efficiency of a trailer.

Helps maintain excess cooling capacity

ThermoGuard contains a revolutionary composite layer that seals a trailer's insulation more effectively than traditional liners, significantly reducing the "out gassing" effects.

Refrigerated trailers with traditional FRP liners continuously lose thermal efficiency because these liners allow an "out gassing" effect that causes insulation degradation over time.

Reduces operational costs

ThermoGuard allows a trailer's insulation to perform more efficiently year after year. As a result, operational costs are reduced as the cooling unit runs less, consumes less fuel, and requires less maintenance.

Helps maintain insulation performance

ThermoGuard helps maintain insulation performance as the trailer ages; therefore, the cooling unit will not have to work as hard each year to make up for degrading insulation performance.

This helps maintain excess capacity, lowers cooling unit run-time hours, and saves cooling unit fuel. ThermoGuard can potentially reduce cooling unit run time more than 1,000 hours over the course of five years.

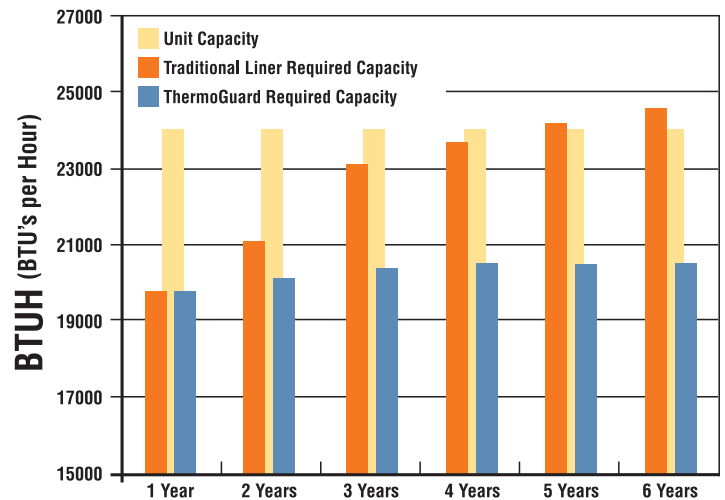
Increases trailer productivity

A refrigerated trailer lined with ThermoGuard dramatically slows down the loss in insulation performance, extending the useful life, and increasing the effectiveness of the trailer. ThermoGuard helps to keep a refrigerated trailer on the road and generating revenue by maintaining excess cooling capacity, decreasing unit maintenance downtime, and expanding its productivity.

Strong, durable, and puncture resistant

ThermoGuard is designed to be lighter and stronger than traditional liner materials. Made incredibly thin, but nearly impossible to penetrate, this strong yet lightweight lining is superior to traditional liners used in most refrigerated trailers.

THERMOGUARD HELPS MAINTAIN EXCESS CAPACITY SO THE TRAILER HAS MORE USEFUL LIFE



Capacity shown for 100° F outside temperature, -20° F inside temperature, and assuming cooling unit maintains consistent output for 5 years. Traditional-lined trailers suffer normal aging due to "out gassing" effects. Initial trailer UA = 165 BTU/hr degrees F.



REDUCTION IN COOLING UNIT OPERATING TIME HELPS TO:

- ▶ Reduce cooling unit maintenance
- ▶ Save cooling unit fuel
- ▶ Save cooling unit refueling time
- ▶ Extend cooling unit life

THERMOGUARD HELPS TO MAINTAIN TRAILER VALUE WITH:

- ▶ Higher resale value
- ▶ Longer trailer life
- ▶ Longer lasting cooling units
- ▶ Greater usefulness

ThermoGuard is available as an option on all Great Dane refrigerated trailers models.

PunctureGuard

Never has so little done so much.

Designed to protect a trailer's interior walls from everyday abuses, PunctureGuard scuffbands and wall liners are incredibly thin, yet nearly impossible to penetrate. PunctureGuard provides the extra protection that will extend the life of your trailer, load after load, year after year.

THE ADVANTAGES OF PUNCTUREGUARD:

- ▶ Helps increase a trailer's resale value
- ▶ Needs no surface treatment to resist stain and abrasion
- ▶ Provides the most impact resistance available in trailer linings
- ▶ Remains pliant over time so that impacts from loading equipment will not cause the material to set or curl away from the walls
- ▶ Glossy-white finish enhances the appearance of a trailer's interior
- ▶ Significantly reduces maintenance costs

OPTIONS for Dry Freight Trailers	
Scuffband	.200" non-bondable surface, natural finish
Linings	.070" non-bondable surface, natural finish .100" non-bondable surface, natural finish

OPTIONS for Reefer Trailers	
Scuffband	.200" bondable surface, white finish
Linings	.050" limited operations .070" bondable surface, white finish .100" bondable surface, white finish

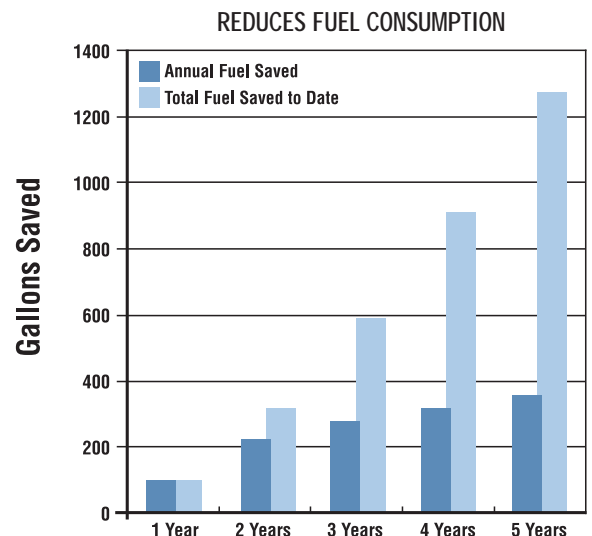
ThermoGuard

ThermoGuard creates a longer useful lifecycle and a higher resale value.

To get the most out of your refrigerated trailer you need it to maintain its insulation efficiency. Not only for today, but for the life of the trailer. Great Dane's revolutionary liner, ThermoGuard, is designed to help keep refrigerated trailers running cooler for longer, and generating income for you.

THE ADVANTAGES OF THERMOGUARD:

- ▶ Helps maintain excess cooling capacity
- ▶ Reduces operational costs by helping reduce cooling unit run-time, reducing cooling unit maintenance, and saving cooling unit fuel
- ▶ Helps maintain insulation performance as the trailer ages
- ▶ Lightweight — saves up to 200 additional pounds
- ▶ Strong, durable, and puncture resistant
- ▶ Helps to extend the useful life of the trailer, increasing trailer productivity, and improving resale value



Estimated fuel savings assume 65° F average outside temperature, -20° F inside temperature, and initial trailer UA = 165°. Also, the cooling unit is assumed to be operated in Start/Stop mode, steady state conditions for 3000 TC hours annually @ 1.1 gal/hour fuel burn rate.



Great Dane

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