

INTRODUCING  
**PUNCTUREGUARD**

— FOR THE LIFE OF YOUR TRAILER —



**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.

NOW AVAILABLE IN TWO STRENGTHS, GREAT DANE'S THERMOPLASTIC LINERS, PUNCTUREGUARD AND PUNCTUREGUARD PLUS, PROVIDE THE EXTRA PROTECTION THAT WILL EXTEND THE LIFE OF YOUR TRAILER, LOAD AFTER LOAD, YEAR AFTER YEAR.



Typical interior damage  
from daily loading and unloading

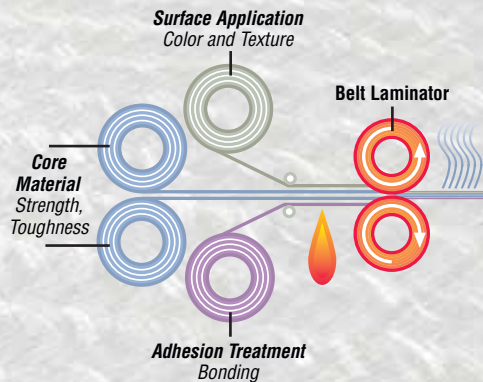
## Trailers are made tough. PunctureGuard makes them *even tougher*.

Great Dane's continued commitment to research and development has resulted in some amazing new products. With an overwhelming response, PunctureGuard scuffbands have proven to be a more durable yet lighter option for trailer protection.

Now this enhanced material is available throughout the interior of Great Dane van and reefer trailers. Until the discovery of thermoplastic composite materials, trailer manufacturers were dependent upon products like wood, aluminum and plastic to protect trailer walls from the abuses of forklift and cargo damage.

Great Dane's PunctureGuard is made from an innovative manufacturing process that thermally joins woven polypropylene and glass fibers into continuous rigid panels. The result is a highly durable product most suitable for the abuses of trailer interiors.

### Manufacturing Process



## PunctureGuard offers increased strength — *without adding weight*.

Because of its toughness and durable design, PunctureGuard is superior to other materials on the market used as interior lining.

Many materials have been used to protect the interiors of trailers. Wood and steel have most notably been the strongest but also are the heaviest. In the quest to find lighter weight options for trailer protection while still maintaining strength, manufacturers began using aluminum and plastics.

Fiberglass-reinforced plastics (FRP) use a plastic resin in combination with glass. The plastic matrix can be either a thermoset or a thermoplastic resin. Although a thermoset is strong, it can also be brittle giving it less ability to absorb energy, making it less tough. Since thermoplastics are able to absorb more energy, they are tougher.

***PunctureGuard is the only liner designed from conception for the trailer industry by the trailer industry.***

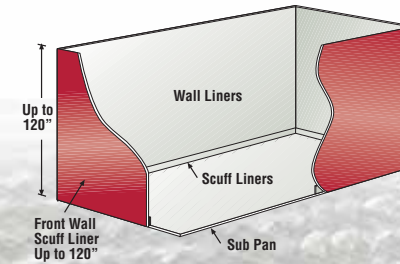
PunctureGuard is a flexible polypropylene plastic that is tough and tends not to break under stress. The distribution of fiber and glass is consistent, providing uniform strength. Since it is thermoplastic, PunctureGuard can be reheated and reformed, which makes it easy to repair. The polypropylene material is impervious to moisture and will not deteriorate like wood liners.

Better energy absorption from the matrix, polypropylene, and greater strength from additional glass fibers produce the superior strength-to-weight ratio of the PunctureGuard thermoplastic material. This enables the material to be made thinner and lighter than other materials, providing more interior trailer cube while also providing a tougher damage barrier.



***Great Dane offers PunctureGuard in two varieties:***

- **PunctureGuard** is over 40% lighter than the weight of the .090" and tapered FRP linings, yet it has greater performance.
- **PunctureGuard Plus** is a slightly stronger and heavier lining consolidation offering even greater protection.



**Options for Dry Freight Trailers**

***Scuffband***

- PunctureGuard Plus • .160" non-bondable surface, natural finish
- PunctureGuard Plus • .200" non-bondable surface, natural finish

***Linings***

- PunctureGuard Plus • .100" non-bondable surface, natural finish

**Options for Reefer Trailers**

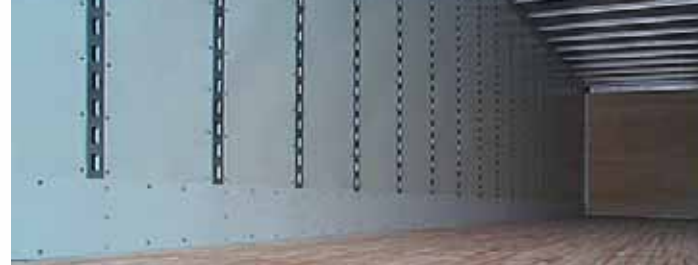
***Scuffband***

- PunctureGuard Plus • .120" bondable surface, white finish
- PunctureGuard Plus • .200" bondable surface, white finish

***Linings***

- PunctureGuard • .050" offered in limited operations
- PunctureGuard Plus • .050" offered in limited operations
- PunctureGuard Plus • .070" bondable surface, white finish
- PunctureGuard Plus • .100" bondable surface, white finish

## F E A T U R E S



Trailer protected with PunctureGuard wall liner and scuffband.

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

#### **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.



*Attached with Torx-head recessed fasteners, PunctureGuard won't bend and set like steel or aluminum.*

#### **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.

#### **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.



#### **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.

**Dry Freight Linings**

COMPARISON CHART

Material	Plywood	.100" PunctureGuard Plus	.019" SSL Steel Panel
Puncture Strength	Base	4.5 x	4.6 x
Weight add (lbs./sq. ft.)	Base	Same	1.8 x

**Reefer Linings**

COMPARISON CHART

Material	.090" FRP	.060" FRP	.050" PunctureGuard Plus	.070" PunctureGuard Plus	.100" PunctureGuard Plus
Puncture Strength	Base	0.8 x	2.6 x	4.0 x	5.8 x
Weight add (lbs./sq. ft.)	Base	0.66 x	0.64 x	0.94 x	1.42 x



**Great Dane Trailers**

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