



## Overview

PALGARD TG offers optically clear, impact-resistant glazing for rail car applications.

PALGARD TG is engineered to withstand the rigors of daily service in the rail industry, including vandalism.

Palgard TG is a polycarbonate substrate that offers tremendous impact resistance and breakage protection. It features an advanced surface coating that provides extraordinary chemical and abrasion resistance.

Budgets can be made or broken by unplanned maintenance and replacement. PALGARD TG helps to reduce costs and improve in-service availability of railcars.

[www.palramamericas.com](http://www.palramamericas.com)

## Main Benefits

- Manufacturer's limited warranty against breakage
- Abrasion-resistant surface resists weathering and scratching
- Complies with various FRA standards (*see table on reverse side*)
- Low weight: nearly half the weight of glass
- Clear - optical quality



## Typical Applications

- Light rail
- Commuter rail
- High speed rail
- Bus glazing





## Regulatory Code Compliance Certification

Organization	Standard	Classification*
FRA (Federal Railroad Administration)	49 CFR Part 238, App. B (ASTM E162)	Is ≤ 100
	49 CFR Part 238, App. B (ASTM E662)	Ds (4.0) ≤ 200
FRA	49 CFR Part 223 (Ballistic .22 LR)	Pass
	49 CFR Part 223 (Impact, Type I & II)	Pass
NFPA	NFPA 130	Is ≤ 100
		Ds (1.5) ≤ 100 Ds (4.0) ≤ 200
ANSI	Z26.1-96	AS-4, AS-4A, AS-5 and AS-12
Boeing	BSS 7239	Approved
ASTM	D635 (Horizontal Burn, AEB)	< 1 in.

\*Depends on thickness



**PALRAM AMERICAS**  
9735 Commerce Circle  
Kutztown, PA, 19530 USA  
Tel: 800.999.9459  
palramamericas@palram.com



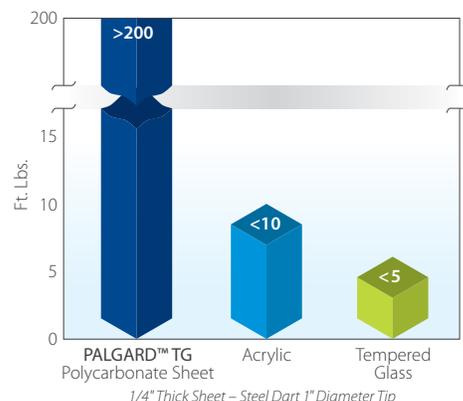
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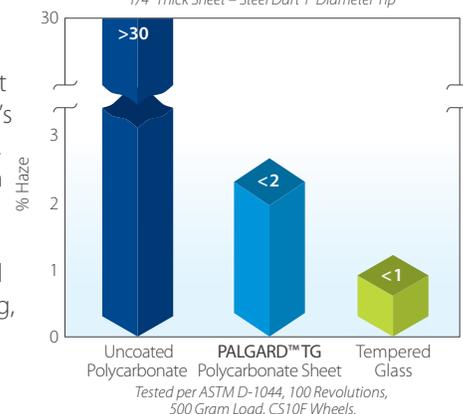
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**Impact Resistance**  
PALGARD TG weighs in at approximately half the weight of glass, yet offers more than 200 times its impact strength. The result is better protection against vandalism, breakage, and unplanned maintenance.



**Taber Abrasion**  
Taber abrasion is a test to determine a plastic's resistance to abrasion. Resistance to abrasion is defined as the ability of a material to withstand mechanical action such as rubbing, scraping, or erosion.



## Product Availability\*

Width x Length in. (mm)	Thicknesses in. (mm)	Colors
48 x 96 (1200 x 2440)	.236 & .460	Clear*
60 x 96 (1525 x 2440)	Available upon request. Stock levels fluctuate according to market demand.	
72 x 96 (1830 x 2440)		

\*Special dimensions and colors are available, subject to minimum order.

## Care and Maintenance

Palgard TG offers excellent durability and easy care and maintenance, however, it is important to be aware of specific manufacturer recommendations to ensure compatibility. For details, visit [www.PalramAmericas.com/PalgardTG](http://www.PalramAmericas.com/PalgardTG)

## Compatible Sealants and Chemicals

As with any plastic product, it is important to use compatible sealants and adhesives. For a detailed list of compatibility-tested sealants and additional chemical resistance details, visit [www.PalramAmericas.com/Tech](http://www.PalramAmericas.com/Tech)

