

# PULTRUDED TRENCH GRATE

## Technical Data Sheet



Before



During Installation



Finished In Use  
Corrosive Environment

### DESCRIPTION

Creative Pultrusions, Inc. (CPI) fiberglass reinforced polymer (FRP) trench covers are custom designed specifically for your trench application. Resin options include our standard Pultex® polyester (1500), polyester fire retardant (1525) and vinyl ester (1625). Our customers prefer the FRP grates over steel grates due to the lightweight and corrosion resistance features.

The water ingress openings can be custom designed for your application and flow rate and code requirements. The hold down requirements can be custom designed based on your trench type. The top surface features an integrated texture that meets ADA and OSHA slip requirements.

### FEATURES & BENEFITS

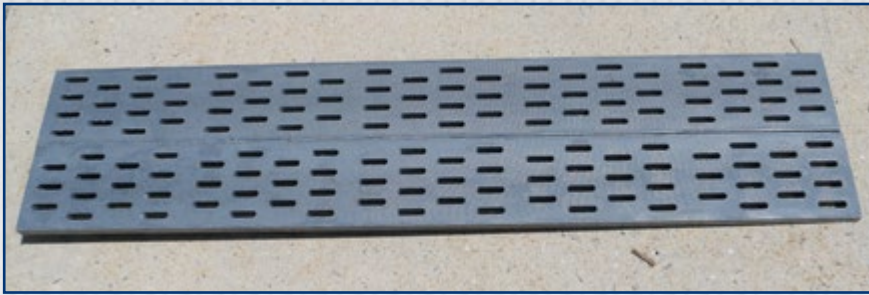
- Corrosion/Chemical Resistant
- Lightweight
- High Strength
- High Dielectric Strength
- Integrated Antiskid

### APPLICATIONS

- Wash Bay Trench Covers
- Paint Prep Bay Trench Covers
- Maintenance Area Trench Covers
- Chemical Plant Trench Covers
- Electrical Trench Access Covers
- Mass Transit Trench Access Covers



[www.creativepultrusions.com](http://www.creativepultrusions.com)  
(888) CPI-PULL (274-7855)



Grate depicted in photo is two pieces of 5-3/8" (136.53 mm) wide by 48" (1219.2 mm) long by 3/4" (19.05 mm) thick

## MECHANICAL PROPERTIES

Property (coupon values)	ASTM Test	Units		1500/1525 Series		1625 Series	
Flexural Strength, Flatwise (LW)	D790	psi	(MPa)	35,000	(240.6)	35,000	(240.6)
Flexural Strength, Flatwise (CW)	D790	psi	(MPa)	15,000	(103.1)	15,000	(103.1)
Flexural Modulus, Flatwise (LW)	D790	10 <sup>6</sup> psi	(GPa)	2.0	(13.7)	2.0	(13.7)
Flexural Modulus, Flatwise (CW)	D790	10 <sup>6</sup> psi	(GPa)	1.1	(7.6)	1.1	(7.6)
Tensile Strength (LW)	D638	psi	(MPa)	20,000	(137.5)	20,000	(137.5)
Tensile Strength (CW)	D638	psi	(MPa)	10,000	(68.7)	10,000	(68.7)
Tensile Modulus (LW)	D638	10 <sup>6</sup> psi	(GPa)	1.8	(12.4)	1.8	(12.4)
Tensile Modulus (CW)	D638	10 <sup>6</sup> psi	(GPa)	1.0	(6.9)	1.0	(6.9)

## PHYSICAL PROPERTIES

Property (coupon values)	ASTM Test	Units		1500/1525 Series		1625 Series	
Barcol Hardness <sup>1</sup>	D2583			40	40	40	40
Water Absorption	D570	% Max	(% Max)	0.6	0.6	0.6	0.6
Density	D792	(lbs/in <sup>3</sup> )	(Mg/m <sup>3</sup> )	0.060-0.070	(1.66-1.93)	0.060-0.070	(1.66-1.93)
Specific Gravity	D792			1.66-1.93	1.66-1.93	1.66-1.93	1.66-1.93
Coefficient of Thermal Expansion (LW)	D696	10 <sup>-6</sup> in/in/°F	(10 <sup>-6</sup> K/K-1)	8.0	(14.5)	8.0	(14.5)

<sup>1</sup> Pultex® uses a synthetic veil that reduces the Barcol Hardness, but does not reflect lack of cure.

## ELECTRICAL PROPERTIES

Property (coupon values)	ASTM Test	Units		1500/1525 Series		1625 Series	
Arc Resistance (LW)	D495	seconds	seconds	120	(120)	120	(120)
Dielectric Strength (LW)	D149	KV/in	kV/mm	40	(1.58)	40	(1.58)
Dielectric Strength (PF)	D149	volts/mil	kV/mm	200	(7.9)	200	(7.9)
Dielectric Constant (PF)	D150	@60Hz	@60Hz	5.2	5.2	5.2	5.2

## FIRE PROPERTIES

Property (coupon values)	ASTM Test	Value 1525	Value 1625
Flammability Classification	UL94	(VO)	(VO)
Tunnel Test	ASTM E-84	25 Max	25 Max
Flammability Extinguishing	ASTM D635	Self extinguishing	Self extinguishing
NBS Smoke Chamber	ASTM E662	650	650

Creative Pultrusions, Inc. reserves the right to edit and modify literature, please consult the web site for the most current version of this document.



Consult CPI's Sales Team  
to discuss your trench  
application today!

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