

TECHNICAL GUIDE



894 Prairie Avenue • Wilmington, OH 45177 • www.timbertech.com • 1.800.307.7780

CranePlastics® is a registered trademark of Crane Plastics Company LLC. TimberTech®, Less Work. More Life.® and swirl design are registered trademarks.

Crane Plastics Manufacturing's use of the mark DrySpace is with consent of DrySpace, Inc., in Cedar Rapids, Iowa. Crane Plastics Manufacturing and DrySpace, Inc., are not affiliated in any way. Neither company warrants the goods or services of the other.



©2008 TimberTech. Printed in the U.S.A. LIT-TT08-TECHBK

Effective November 1, 2007





INDEX

Warranty	1
Code Listings	2
Installation Tips	3
Decking Profiles & Accessories	4
Railing Profiles & Accessories	5-6
DrySpace Profiles	6
Fastening Methods	7-8
Color Chart	9-10
Span Chart	11
Loading Conditions	12
Materials Properties	13-14
Care & Handling	15
Care & Cleaning	16-18
Contractor Programs	19
TimberTech® on the Web	20

TimberTech recommends visiting your local Dealer to view deck
expanse, see actual profiles and make color selections. For additional
information to ensure proper installation of products:

- Refer to the TimberTech *Installation & Maintenance Guide*
- Call 1-800-307-7780
- Visit the TimberTech web site at: www.timbertech.com



Decking & Railing

TimberTech decking and railing products are backed by a 25-year limited warranty for residential applications and a 10-year limited warranty for commercial applications.*

TimberTech products are guaranteed against:

- Termites
- Checking
- Splitting
- Decay
- Rotting
- Splintering

*This does not include BuilderRail metal balusters which are covered by a 10-year limited warranty against cracking, peeling, blistering, and corrosion.

DrySpace

TimberTech DrySpace has a 25-year residential limited warranty on products purchased on or after January 1, 2007. DrySpace products purchased prior to this date have a 5-year limited warranty.

To Make a Claim

To make a claim under either warranty, purchaser or the transferee, must send to TimberTech, within the warranty period referred to above, a description of the claimed defect and proof of purchase.

Warranty Information Packets can be obtained from TimberTech.

TimberTech Limited

Attn: Claims Department

894 Prairie Avenue, Wilmington, Ohio 45177

Or call 1-800-307-7780

For a copy of TimberTech's complete warranty and to register a new TimberTech deck, visit www.timbertech.com or refer to the TimberTech *Installation & Maintenance Guide*.

Once a product is tested by an independent lab, an application and report is submitted to one of several agencies that provide listings for building products that meet the requirements of Acceptance Criteria 174 (AC 174) as set forth by the International Code Council Evaluation Service (ICC-ES). TimberTech currently has listings from the ICC-ES and Architectural Testing Inc. The following TimberTech reports on code compliance are available to download on www.timbertech.com



ICC ESR-1400

- Earthwood® Plank
- TwinFinish® Plank
- ValuPlank™
- Ornamental Rail System

ICC Legacy Report 2325

- Floorizon® Plank

Important Information

- TimberTech meets or exceeds all **Americans with Disabilities Act** standards for slip resistant walking surfaces.
- Scrap can be discarded with normal construction debris.
- RadianceRail® and XLM™ Plank should be disposed of with normal construction debris. **DO NOT BURN** RadianceRail or XLM Plank due to their material properties.

INSTALLATION TIPS

- ✓ Pre-drilling is required for all planks in cold weather. Pre-drilling is also required when within 1-1/2" of the end of the plank.
- ✓ TimberTech's brushed surface is directional in manner. A notch has been added to one side of the Earthwood, TwinFinish, ValuPlank and DockSider Planks. When installing these planks, the marked edge must be laid to the same side throughout the entire installation process for a consistent appearance. Similarly, TimberTech's TwinFascia board has one long beveled edge on the front and back. To ensure a consistent appearance from board to board, the beveled edge must be laid to the same side. If you rip a piece, be sure to note the location of the bevel.
- ✓ TimberTech is NOT intended for use as columns, support posts, beams, joists stringers or other primary load-bearing members. TimberTech must be supported by a code-compliant substructure.
- ✓ TimberTech's TwinFascia is for vertical applications only and should NEVER be used as deck planks.
- ✓ TimberTech XLM, Earthwood, TwinFinish and ValuPlanks can be cantilevered a maximum of 1" – Floorizon can not.

TimberTech Floorizon Planks require a minimum of 12" high unobstructed continuous airspace below joists and along three sides of the deck.

Specific application requirements apply to Floorizon; reference the TimberTech *Installation & Maintenance Guide*.

DECKING PROFILE & ACCESSORIES

Description	Size	Weight* Lbs/Each	Weight* Lbs/Ft.	Quantity/ Unit
XLM™ Solid	1"x5-7/16"x12',16',20'	19,26,32	1.54	64
XLM™ Grooved	1"x5-7/16"x12',16',20'	18,25,30	1.54	64
Earthwood® Solid	1"x5-7/16"x12',16',20'	35,47,58	2.8	64
Earthwood® Grooved	1"x5-7/16"x12',16',20'	34,45,56	2.8	64
TwinFinish® Classic	1"x5-1/2"x12',16',20'	35,46,58	2.7	64
TwinFinish® Solid	1"x5-1/2"x12',16',20'	35,47,58	2.7	64
TwinFinish® Grooved	1"x5-1/2"x12',16',20'	34,45,56	2.7	64
ValuPlank™	1"x5-1/2"x12',16',20'	35,47,59	2.7	64
Floorizon®	1-1/2"x6"x12',16',20'	28,37,46	2.2	31
DockSider™	1-1/4"x5-1/2"x12',16',20'	45,60,75	3.5	48

Decking Accessories				
TwinFascia®	9/16"x10"x12'	38,40,41		40
TwinFascia®	9/16"x12"x12'	45,47,50		30
XLM™ Fascia	9/16"x12"x12'	26		30
TwinRiser®	9/16"x7-1/4"x12'	28		42
Inside Corner Moulding	5/8"x1-1/8"x12'	4		12
Outside Corner Moulding	3/8"x1-1/2"x12'	4		12
Floorizon® Starter Strip	1-1/8"x1-1/2"x12'	7		12
End Cap	3/8"x1-1/2"x12'	6		12
BuilderBoard™ (2 pieces)	1-7/16"x3-7/16"x8'	42		33
CONCEALoc™ Fasteners-Retail Carton	100 sq. ft. coverage	4		8
CONCEALoc™ Fasteners-Bulk Bucket	1000 sq. ft. coverage	43		1

*Weights are rounded to nearest lb.

RAILING PROFILE & ACCESSORIES

Description	Size	Weight each (lbs)	Qty/Unit
Ornamental Rail Kits			
6' Kit	6' wide	33	30
8' Kit	8' wide	42	30
6' Sq. Baluster Kit <small>36" Rail Height</small>	1-5/16"x1-5/16"x27"	34	30
8' Sq. Baluster Kit <small>36" Rail Height</small>	1-5/16"x1-5/16"x27"	42	30
6' Spindle Kit <small>36" Rail Height</small>	1-3/8"x1-3/8"x27"	17	30
8' Spindle Kit <small>36" Rail Height</small>	1-3/8"x1-3/8"x27"	20	30
Ornamental Rail Accessories			
Post Cap, Flat Top	N/A	1	6
Post Cap, Copper	N/A	1	5
Post Cap, Stainless Steel	N/A	1	5
Post Cover	4-1/4"x4-1/4"x4'	12	40
Post Cover	4-1/4"x4-1/4"x12'	42	16
Post Skirt	N/A	0.5	6
Square Baluster (9)	1-5/16"x1-5/16"x12'	12	144
RadianceRail Kits			
6' Sq. Baluster Kit	6'x36" high	37	30
8' Sq. Baluster Kit	8'x36" high	49	30
6' Baluster Kit	6'x42" high	39	30
8' Baluster Kit	8'x42" high	52	30
6' Spindle Kit	6'x36" high	37	15
8' Spindle Kit	8'x36" high	49	15
RadianceRail Accessories			
Post Cover	5"x5"x4'	12	40
Post Cover	5"x5"x12'	42	16
Post Cap	N/A	1.3	6
Post Skirt	N/A	0.5	6
Top Rail Bulk	8'	12	5
Bottom Rail Bulk <small>Not Pre-drilled</small>	8'	7	10
Support Rail Bulk <small>Not Pre-drilled</small>	8'	6	10
Hardware Mounting Kit	N/A	N/A	30

RAILING PROFILE & ACCESSORIES

Description	Size	Weight each (lbs)	Qty/Unit
BuilderRail			
6' BuilderRail Kit: Black Classic Metal Balusters	6' length 36" high	43	16
8' BuilderRail Kit: Black Classic Metal Balusters	8' length 36" high	57	16
8' BuilderRail Stair Kit: Black Classic Metal Balusters	8' length 36" high	58	16
BuilderRail Accessories			
BuilderRail Hardware Mounting Kit	90° Bracket	0.9	20
BuilderRail Hardware Stair Mounting Kit	For Nominal 35° Stair	1.1	20

NOTE: Six and eight foot kits are from center of post to center of post measurements.

DRYSpace PROFILES

Description	Size	Weight each (lbs)	Qty/Unit	Weight unit (lbs)
DrySpace				
12" O.C. Kit	12'	84	6	504
16" O.C. Kit	12'	91	6	546
16" O.C. Kit	16'	123	6	738
Bulk Components				
12" O.C. V-Panel	12'	53	12	636
12" O.C. V-Panel	16'	70	12	840
16" O.C. V-Panel	12'	74	12	888
16" O.C. V-Panel	16'	98	12	1176
Combo Brackets	12'	43	7	301
Combo Brackets	16'	57	7	399
Ledger F-Bracket	12'	50	20	1000
Double Combo Bracket	16'	48	5	240

Decking

TimberTech Solid Planks

Pre-drilling is required when within 1-1/2" of the ends of the plank and in cold weather. The preferred fasteners are high-quality coated, stainless steel or composite deck screws.* Fasteners should be installed perpendicular to the deck and driven flush; do not overdrive.

XML, Earthwood, TwinFinish and ValuPlank: Use a minimum #8 x 2-1/2" high-quality coated stainless steel or composite deck screw.*
DockSider Plank: Use a minimum #8 x 3" high-quality coated, stainless steel or composite deck screw.

If nails are to be used, use stainless steel or high-quality coated nails.* Small head ring shank or casing nails provide minimal fastener exposure. Extreme caution must be used. Do not overdrive the nail – it could cause the planks to split – especially at the ends. Nails should be driven so that the head is flush with the plank surface.

Nails offer time savings but may loosen over time with the expansion and contraction of the entire deck system (joist and planking). This may cause the nails to pop up from the deck surface, which will require re-setting the nails. Protruding nail heads are one source of the most common injury to bare feet on decks.

Fastener Mushrooming: Mushrooming will not occur on XML Plank. The use of composite deck screws can reduce this effect on other planks. If mushrooming occurs, lightly tap the material back into the hole of all planks, except Earthwood. If mushrooming occurs on Earthwood, with the composite screw, we recommend pre-dimpling the plank before driving the screw: set the head flush.

*Compliant with ACQ lumber.

Decking

TimberTech Grooved Planks

XML, Earthwood, TwinFinish, ValuPlank and DockSider Grooved Planks: use TimberTech CONCEALoc Hidden Fasteners. Follow the directions on the CONCEALoc bucket or box. If a screw is used fasten 1" from the edge.

TimberTech Built-In Hidden Fastener System

Floorizon Plank: Use a minimum #8 x 2-1/2" high-quality coated stainless steel or composite deck screw.

TimberTech Fascia Boards

There are options for installing TwinFascia and XML Fascia that provide differences in long-term holding and aesthetics. For the best aesthetics, nail it with stainless steel nails, as stated in the TimberTech *Installation & Maintenance Guide*. Here's an option that utilizes screws and nails – and will allow movement side to side and in and out.

- Use a #10 countersink and a 3/16" drill bit in combination with a #8 stainless steel flat head screw
- Drive the countersink about 1/8" below the surface and then use a 7/32" drill bit to ream out the through hole
- The oversized hole with a countersink will allow the fastener to be flush, but not tight, to permit movement in and out and side to side
- Install screws every 24" oc using one row of screws near the top and stainless steel finish nails along the bottom, to reduce the visual impact of the screws





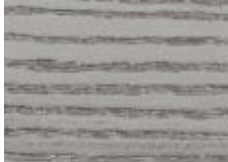







Railing

For railing installation refer to the TimberTech *Installation & Maintenance Guide* for detailed instructions.

COLOR CHART

COLOR CHART

Colors and surface textures will vary depending on product choices;
visit your local Dealer to see actual products.

			Deck Planks	Railing Systems	Accessories
Tropical Rosewood 	Tropical Teak 	Tropical Walnut 	Earthwood Plank Floorizon Plank		TwinFascia (VertiGrain/Serrated) TwinRiser Floorizon Starter Strip
Mountain Cedar 	RiverRock 	SandRidge 	XLM Plank		XLM Fascia
Cedar 	Grey 	Redwood 	Floorizon Plank TwinFinish Plank ValuPlank (Grey & Cedar) DockSider Plank (Grey & Cedar)	Ornamental Rail BuilderRail	TwinFascia (VertiGrain/Serrated) TwinFinish Plank Inside Corner Moulding Outside Corner Moulding Floorizon Starter Strip End Cap BuilderBoard TwinRiser
Classic Black 	Coastal White 	WhiteSand 		RadianceRail (Classic Black, Coastal White) Ornamental Rail (WhiteSand)	TwinFascia (Smooth/Serrated) (WhiteSand)

Gapping Requirements

Allow 1/4" minimum gap where the planking meets an adjoining structure or post.

Gapping guidelines for all TimberTech planks, including the new XLM Plank:

Below 32° F	33° F to 74° F	Above 75° F
3/16" gap	1/8" gap	1/32" gap

Floorizon Plank*

	90°	30°	45°
200 psf	16"	14"	12"
100 psf	24"	20"	17"

XLM Plank

	90°	30°	45°
200 psf	16"	12"	12"

Earthwood, TwinFinish & ValuPlank

	90°	30°	45°
200 psf	16"	14"	12"
100 psf	20"	18"	16"

DockSider Plank

	90°	30°	45°
200 psf	22"	18"	16"
100 psf	24"	20"	17"

*Canada can span 575mm.

NOTES:

- Special conditions will require engineering inspection and/or reduced spans. Always consult local building codes.
- TimberTech is NOT intended for use as columns, support posts, beams, joist, stringers, and other primary load-bearing members.

Uniform Live Load (U.L.L.)

Plank	Joist Spacing L (inches) (1)	U.L.L. based on max. allowable deflection L/180	U.L.L. based on the design bending strength	U.L.L. based on the design shear	Bearing (2)
Floorizon	12	1770	1610	337	148 psi
	16	747	905	252	
	20	382	579	202	
	24	221	402	168	
Earthwood, TwinFinish & ValuPlank	12	975	1187	628	150 psi
	16	411	668	461	
	20	211	427	364	
	24	122	297	301	
DockSider	12	1515	1748	958	150 psi
	16	639	983	719	
	20	327	629	575	
	24	189	437	479	
XLM					

NOTES:

- Refer to span chart for maximum allowable spans.
- The compressive bearing of the deck members shall be less than the compressive bearing of the wood member supporting the deck member.
- Use data from this chart for calculations only.

NOTE: Above data is current as of 11/07. For updates on this data and information on XLM Plank visit www.timbertech.com/specs.

MATERIAL PROPERTIES

PROPERTY	ASTM	RESULTS	RESULTS (Metric)
Flame Spread	E84	75	75
Smoke Development	E84	200	200
Burning Brand	E108-modified	Class B*	Class B*
Flash Point	D92	750°F	398°C
Fire Point	D92	729°F	387°C
Coefficient of Thermal Expansion	D696		
width		3.41x10 ⁻⁵	3.41x10 ⁻⁵
length		1.6 x 10 ⁻⁵	1.6 x 10 ⁻⁵
Modulus of Elasticity (psi)	AC-109, ASTM D 198		
Floorizon		470000	3240MPa
2x6		430000	2964MPa
DockSider	ASTM D 6109	411906	2839MPa
Earthwood, TwinFinish & 5/4	ASTM D 6109	438863	3025MPa
Modulus of Rupture (psi)	AC-109, ASTM D 198		
Floorizon		3300	22.75MPa
2x6		2700	18.61MPa
DockSider	ASTM D 6109	3067	21.14MPa
Earthwood, TwinFinish & 5/4	ASTM D 6109	3042	20.97MPa
Tensile Modulus (psi)	D638		
length		879000	6060MPa
width		378000	2606MPa

* No worse than wood.

NOTE:

1. This chart is not applicable for TimberTech's RadianceRail, XLM Plank or DrySpace
For updates on this data visit www.timbertech.com

MATERIAL PROPERTIES

PROPERTY	ASTM	RESULTS	RESULTS (Metric)
Tensile Peak Stress (psi)	D638		
length		1810	12.47MPa
width		648	4.46MPa
Compressive Strength (psi)	D695		
length		3031	20.89MPa
width		2899	19.98MPa
Poisson Ratio	D638		
length		0.394	0.394
width		0.1918	0.1918
HDT 264 (psi)	D648	206°F	1.82MPa / 96.7°C
Vicat 1 kg	D1525	274°F	134.4°C
Shore D Hardness	D2240	D85	D85
Specific Gravity gm/cc	D792	1.2	1.2
Fungus Resistance	D1413	rating = no decay	
(brown and white rot fungi)			
Coefficient of Friction	ASTM D 2047		
dry		0.55	0.55
wet		0.88	0.88
Screw Withdraw #8 wood screw	D1761	787 lbs/in	1377.25N/m
Water Absorption	D1037		
%vol		<1.35%	<1.35%
%mass		<1.29%	<1.29%

NOTE:

1. This chart is not applicable for TimberTech's RadianceRail, XLM Plank or DrySpace
For updates on this data visit www.timbertech.com

Storage

Store TimberTech products under cover to maintain a clean surface. If stored outdoors, they must be covered with a non-translucent material. All products should be stored flat and on a dry surface prior to installation.

Stacking

To decrease damage to product, stack the units with banding and bottom supports aligned.

Handling

Although, all TimberTech planks are made from low-maintenance composite material, their unique features require special care and handling to ensure lasting beauty.

- To minimize scratching do not slide or drag tools across the planks.
- Carry TimberTech planks on edge for better support.
- Never dump TimberTech materials when unloading.

Scratches, Nicks, Cuts and Grooves

For all TimberTech products except Earthwood Planks, BuilderBoard, RadianceRail and Ornamental Rail, scratches, nicks, cuts and grooves can be eliminated by using a wire brush. Brushing needs to be consistent with the grain of the product. Weathering will help return the brushed area to its original appearance in 8-10 weeks.

For Earthwood Planks, surface scratches will fade after weathering, and the more the planks weather the more resistant they are to scratching. For minor scratches you can use a soldering iron such as the LSP-25 (manufactured by Wall Lenk Corp.) to melt and return the scratch back to the original color. Try on a sample piece first. Use soldering iron with caution. Visit www.timbertech.com for more information.

For RadianceRail touch-up, Duplicolor 2 in 1 automobile touch-up paint is recommended. For Coastal White use Gloss White, and for Classic Black use Universal Flat Black.

Basic Cleaning

Although TimberTech products are low-maintenance, TimberTech recommends periodic cleaning of its products. For best results a cleaner like eco-friendly Corte Clean (www.corteclean.com) or Zinsser's JOMAX (www.zinsser.com) that contains or is mixed with Sodium Hypochlorite. Follow the manufacturer's application instructions.

Power washing will enhance results when cleaning your TimberTech deck. 1500psi is the recommended maximum for TimberTech products. A fan tip nozzle should be used along with the proper cleaning product. Spray in the direction of the brush/grain pattern to avoid damaging your decking. Use caution not to damage the material and always take the proper safety precautions when operating a power washer.

To remove product identification printing from the side or bottom of a TimberTech deck plank use Isopropyl Alcohol (rubbing alcohol).

Mildew

TimberTech products are formulated to inhibit mildew growth and minimize staining. Wash your deck periodically with a cleaner like eco-friendly Corte Clean (www.corteclean.com) or Zinsser's JOMAX (www.zinsser.com) that contains or is mixed with Sodium Hypochlorite. Follow the manufacturer's application instructions.

Rinse off your TimberTech deck periodically with a hose. Even if your deck appears clean, it is important to prevent build-up of pollen/debris. Mildew stains may occur where moisture, pollens, and/or dirt are present.

Maintaining a clean, dry deck surface is the best method for combating mildew. Ensure that water drains effectively from your deck. Keeping weep holes clear and unclogged on TimberTech Floorizon planks. For all other TimberTech planks, be sure that gaps exist between planks to allow for drainage.

Ice and Snow

Use calcium chloride or rock salt to melt the ice and snow.

Spot Stains

Oil Eater Cleaner and Degreaser is very effective against oil, grease and other stains. For heavy stains check with your local home center or lumber yard for cleaners applicable to a specific stain type.

On TimberTech products except Earthwood, BuildBoard and Railing Systems: If stains have set, you may want to use fine sandpaper and sand lightly, following the wood grain finish of the plank. The sanded area will weather back in approximately 8-10 weeks.

Tannin Stains

Like any wood-based product, TimberTech may experience a naturally occurring process called **extractive bleeding**. This process may cause a temporary discoloration that will weather away. This process varies depending on location and specific application such as a covered porch. To clean these areas on your TimberTech deck, it is recommended that you use a product such as Dekswood, manufactured by Flood, www.floodco.com (800) 321-3444, or eco-friendly Corte Clean, www.corteclean.com.

Rust, Ground-in Dirt and Grime

Use a cleaner that contains Phosphoric Acid or Oxalic Acid. Follow manufacturer's application instructions.

On TimberTech products except Earthwood, BuilderBoard and Railing Systems: If the stains have set, you may use fine sandpaper and sand lightly followed by a wire brush to re-grain the decking (this applies to brushed surfaces only). Always follow the wood grain finish. The sanded area will weather back in approximately 8-10 weeks but can vary depending on location and specific application.

Painting, Staining and Sealing

TimberTech wood composite products can be painted or stained. **TimberTech does not recommend painting and can not guarantee the performance of anything applied to the product.**

Wait approximately 8-10 weeks or until TimberTech has completed its weathering process before painting or staining. Clean your TimberTech decking surface prior to applying paint or stain. Never paint or stain over surfaces that may contain dirt, or mildew.

Best results will be obtained when using a high-quality paint or solid color stain. Be sure paint or stain does not clog drain holes in the TimberTech Floorizon planks. Once TimberTech is painted, stained or sealed, subsequent applications will be necessary to maintain appearance. Always apply paints and sealers in accordance with the manufacturer's application instructions.

Stains and sealers that are recommended for use with TimberTech are:

- Cabot Clear Solution-Oil Based (www.cabotstain.com)
- Cabot Australian Timber Oil (www.cabotstain.com)
- Weatherall UV GuardDeck and Fence Coating (www.weatherall.com)



TimberTech Elite Contractor Program

Benefits of the Elite Contractor program include:

- Product samples and sales literature to promote TimberTech
- Listing on TimberTech's website
- Consumer referrals provided by TimberTech
- Customized website and access to pre-produced advertising materials
- Direct access to TimberTech personnel
- On-line discussion forum for installation questions, training, and marketing planning
- Home & Garden Show planning

TimberTech Premier Contractor Program

Premier Contractors feature a strong commitment to TimberTech. In addition to the Elite Contractor benefits, Premier Contractor benefits include:

- Access to direct consumer leads
- Access to co-op advertising (subject to approval)
- Priority listing on TimberTech's web site

New Certification

For more information on TimberTech Contractor programs, visit www.timbertech.com, where you will find online training and an assessment video.

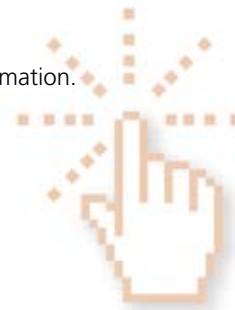
Interested in the Premier Contractor status? Contact your local TimberTech Sales Representative.

Re-Certification

TimberTech encourages existing TimberTech Contractors to re-certify through the online training and assessment video. Re-certification will ensure you are up-to-date with TimberTech information, samples and literature.

You and your customers can visit us at www.timbertech.com for more information.

- Product and Color Information
- Dealer/Contractor Locator
- Photo Gallery
- Design-A-Deck Tool
- Installation Instructions
- Request or Download Literature
- Care and Cleaning
- Warranty and Registration
- Trade Show and Home & Garden Show Calendars



TimberTechDirect

TimberTech Elite and Premier Contractors can also visit TimberTechDirect, our exclusive Contractor section.

Simply go to TimberTechDirect.com and register.

- Download Photography
- Download Logos
- Download Print Ads
- Download Radio Ads
- View/Request TV Commercials
- Download Banner Ads
- NEW Request Samples and Literature

The items below are available to order on the TimberTechDirect site:

- Customized Elite Contractor Postcards
- Customized Yard Signs
- Customized Door Hangers
- Truck Magnets