# rex Seclusions

COMPOSITE FENCING SYSTEM

ARCHITECTURAL DRAWING: TREX SECLUSIONS FENCING 6' TALL x 8' WIDE

Trex Company National Distribution Partner 96" O.C.-91" Post Profile: Elevation View QUANTITY LENGTH COMPONENTS 747" Post Cap: Pyramid, Flat, 108" \* 5" x 5" Post 735" 72" 91" \* 4" x 4.9" Top Rail 19 67" × 1"x5.75" Interlocking Picket 91" " 2 1" x 5.75" Bottom Rail Cover H 1 90 1/2" Aluminum Bottom Rail 30" Typ.

Concrete

FILL



Typ

- 1. INSTALLATION TO BE COMPLETED PER MANUFACTURER'S SPECIFICATION.
- 2. THIS DRAWING IS PROVIDED FOR PLANNING PURPOSES. REFER TO MANUFACTURER'S INSTALLATIONS FOR CONSTRUCTION DETAILS.
- 3. REFER TO MANUFACTURER'S WEBSITE FOR PRODUCT
- 4. DRAWING NOT TO SCALE.

Consult local conditions, codes

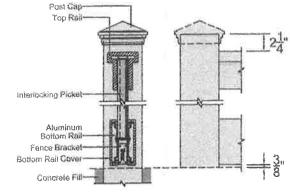
and standard

building practices

for post depth.







Fence Bracket

1 5/8" (Typ) Exterior Wood Screws

Post Profile: Cut View / Elevation View

4

24

\* Length may vary

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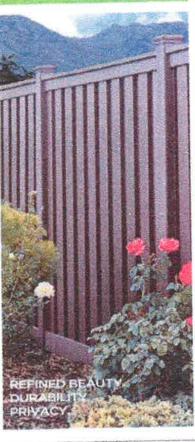


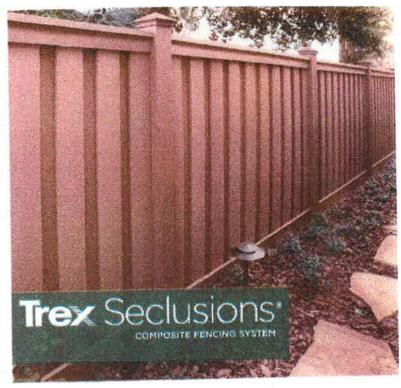






# rex Fencin





# BEAUTY AND PRIVACY FROM EVERY ANGLE

Make your backyard a true masterpiece. Frame it with Trex Seclusions\*. This composite fencing system affers the perfect backdrop to compliment any backyard paradise. With lasting beauty and low maintenance, it's the perfect fencing solution.











#### High performance

- >> Never needs painting or staming
- >> Resists insect damage and won't warp, rot, or splinter
- >> Installs quickly and easily with an interlociding picket system
- >> Wind rating of 110 mph steady and 130 mph gusts
- >> Customizable for height, style, and slope

#### Perennial beauty

- >> Three rich, natural colors that compliment any home
- >> Board-on-board look; same on both sides

#### frex through and through

- >> Contains 95% recycled
- >> Sacked by the Trex 25-year Limited Residential Warranty



A NEW DAWN IN SMART DESIGN.

Simple and eye-catching, Trex Horizons is also low-maintenance. It's one more way Trex is taking a modern approach to backyard living.



Trex fencing is used throughout the country for more than just residential properties. Its qualit makes Trex fencing a superb choice for comme and governmental projects as well.

#### NATURAL MATTE COLOR FINISHES



WOODLAND FROWN



# Irex®



# The leader in eco-friendly decking for over 20 years.

# AT TREX®, BEING GREEN ISN'T A TREND. IT'S A CORNERSTONE.

- » No trees have ever been out down to make frex products
- and wared are saved from tandfill gach year.
- The average 500-square foot composite Trex deck contains over 140,000 recycled plastic bags

- Trex products contribute up to five LEED points to any structure
- a Almost 100% of factory waste as reclaimed.
- No harmful chemicals are used at frex's eco-triendly insulfactuaring processes



#### **SECTION 32 31 25** WOOD COMPOSITE FENCES AND GATES

[Specifications below marked in yellow may be modified based on project parameters. Documents referred to below highlighted in green, may be excluded from specification.)

#### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. Section Includes:
  - Wood composite fences.
  - 2 [Wood composite gates.]
  - Excavation for posts.
  - Concrete post foundations.

#### 1.2 REFERENCES

- A. ASTM International (ASTM):
  - C94 Standard Specification for Ready-Mixed Concrete.
  - 2. C177-04 Standard Test Method for Steady-State Heat Flux Measurements and Thermal
  - 3. Transmission Properties by Means of the Guarded-Hot-Plate Apparatus.
  - D143-94(2000) Standard Test Methods for Small Clear Specimens of Timber.
  - D198-05 Standard Test Methods of Static Tests of Lumber in Structural Sizes.
  - D1037-06 Standard Test Methods for Evaluating Properties of Wood-Base Fiber and Particle.
  - 7. Panel Materials.
  - 8. D1413-05 Standard Test Method for Wood Preservatives by Laboratory Soil-Block
  - 9. D1761-06 Standard Test Methods for Mechanical Fasteners in Wood.
  - 10. D1929-96(2001) Standard Test Method for Determining Ignition Temperature of Plastics.
  - 11. D2047-04 Standard Test Method for Static Coefficient of Friction of Polish-Coated Flooring
  - 12. Surfaces as Measured by the James Machine.
  - 13. D2394-05 Standard Methods for Simulated Service Testing of Wood and Wood-Base Finish
  - 14. Flooring.
  - 15. D2395-06 Standard Test Methods for Specific Gravity of Wood and Wood-Based
  - 16. D4761-05 Standard Test Methods for Mechanical Properties of Lumber and Wood-Base
  - 17. Structural Material.
  - 18. E84-07 Standard Test Method for Surface Burning Characteristics of Building Materials.
  - 19. F1679-04 Standard Test Method for Using a Variable Incidence Tribometer (VIT).
- B. American Wood Preservers Association (AWPA) E1-06 Standard Method for Laboratory Evaluation to Determine Resistance to Subterranean Termites.

## 1.3 SYSTEM DESCRIPTION

A. Design Requirements: Design fence system to withstand Miami/Dade County 110 MPH steady wind and 130 MPH gusting wind tests.

#### 1.4 SUBMITTALS

- A. Submittals for Review:
  - Product Data: Indicate sizes, profiles, surface finishes, and performance characteristics.
  - 2. Samples: [12] [\_\_] inch long samples illustrating each size, profile, color, and surface finish.

- C. Closeout Submittals:
  - 1. Maintenance Data: Manufacturer's instructions on care and cleaning of wood composite products.

# 1.5 DELIVERY, STORAGE AND HANDLING

- A. Deliver, store, and handle wood composite in accordance with manufacturer's instructions.
- B. Do not stack wood composite over 12 feet high.
- C. Cover wood composite with waterproof covering, vented to prevent moisture buildup.

#### 1.6 WARRANTIES

A. Furnish manufacturer's 25 year residential warranty / 10 year commercial warranty providing coverage against checking, splitting, splintering, rotting, structural damage from termites, and fungal decay of wood composite.

#### PART 2 - PRODUCTS

#### WARRANTIES 2.1

- A. Contract Documents are based on products by Trex Company, Inc.
- B. Substitutions: [Under provisions of Division 01.] [Not permitted.]

#### 2.2 MATERIALS

- A. Wood composite:
  - 1. Reclaimed wood and plastic with integral coloring; free from toxic chemicals and preservatives.
  - Characteristics:
    - Abrasion resistance: 0.01 inch wear per 1000 revolutions, tested to ASTM D2394.
    - b. Hardness: 1124 pounds, tested to ASTM D143.
    - Self ignition temperature: 743 degrees F, tested to ASTM D1929.
    - d. Flash ignition temperature: 698 degrees F, tested to ASTM D1929.
    - e. Flame spread rating: 80, tested to ASTM E84.
    - f. Water absorption, 24 hour immersion, tested to ASTM D1037:
      - a) Sanded surface: 4.3 percent.
      - b) Unsanded surface: 1.7 percent.
    - g. Thermal expansion coefficient, 36 inch long samples:
      - a) Width: 35.2 x 10.6 to 42.7 x 10.6.
      - b) Length: 16.1 x 10-6 to 19.2 x 10-6.
    - h. Fastener withdrawal, tested to ASTM D1761:
      - a) Nail: 163 pounds per inch.
      - b) Screw: 558 pounds per inch.
    - Static coefficient of friction:
      - a) Dry: 0.53 to 0.55, tested to ASTM D2047.
      - b) Dry: 0.59 to 0.70, tested to ASTM F1679.
      - Wet: 0.70 to 0.75, tested to ASTM F1679.
    - j. Fungus resistance, white and brown rot: No decay, tested to ASTM D1413.
    - k. Termite resistance: 9.6 rating, tested to AWPA E-1.
    - Specific gravity: 0.91 to 0.95, tested to ASTM D2395.
    - m. Compression:
      - Parallel: 1806 PSI ultimate, 550 PSI design, tested to ASTM D198.
      - Perpendicular: 1944 PSI ultimate, 625 PSI design, tested to ASTM D143.
    - n. Tensile strength: 854 PSI ultimate, 250 PSI design, tested to ASTM D198.
    - Shear strength: 561 PSI ultimate, 200 PSI design, tested to ASTM D143.
    - p. Modulus of rupture: 1423 PSI ultimate, 250 PSI design, tested to ASTM D4761.
    - Modulus of elasticity: 175,000 PSI ultimate, 100,000 PSI design, tested to ASTM D4761.

r. Thermal conductivity: 1.57 BTU per inch per hour per square foot at 85 degrees F, tested to ASTM C177

#### 2.3 COMPONENTS

- A. Fence System: Seclusions Privacy Fence System.
  - Fence height: [4] [6] [8] [10] [12] feet.
  - 2. Components:
    - a. Fence posts.
    - b. Post caps: [pyramid] [flat].
    - c. Top rail
    - d. Aluminum bottom rail inserts.
    - e. Bottom rail covers/Pickets.
    - f. Fence brackets.
  - 3. Surface texture: Smooth.
  - 4. Color: [Saddle.] [Winchester Grey.] [Woodland Brown.]

#### 2.4 ACCESSORIES

- A. Fasteners: 1 5/8" Galvanized or corrosion-resistant coated steel.
- B. Concrete: [ASTM C94;] [Specified in Section 03 3000;] minimum [2500] [\_\_] PSI compressive strength at 28 days, [3 to 5] \_\_\_ to \_\_] inch slump.
- C. 'Gate Hardware:
  - Two Trex hinges per gate leaf, sized to gate weight and conditions.
  - [Center gate stop and drop rod for double gates.]
  - Latching mechanism [with padlock provisions].

#### PART 3 - EXECUTION

#### 3.1 INSTALLATION

- A. Install fences in accordance with manufacturer's instructions.
- B. Cut and drill wood composite using carbide tipped blades.
- Space posts maximum 8 feet on center.
- D. Drill post holes into undisturbed or compacted soil; excavate deeper in soft or loose soils and for 42" posts with heavy lateral loads.
- E. Drill posts to 12 inch diameter. Locate bottom of post [39 inches below grade.] [below frost line.]
- F. Place top of concrete [2 inches below] [flush with] [2 inches above] finished grade.
- G. Screw fence brackets to posts with four 1 5/8" inch long exterior screws.
- H. Cut top and bottom rails and aluminum bottom rails to required lengths.
- 1. Slide bottom rail covers over aluminum bottom rail pieces.
- J. Position aluminum bottom rail on fence brackets.
- K. Insert pickets into bottom rail, interlocking adjacent pieces.
- L. Position top rail and screw attach to top brackets with 1 5/8" inch long exterior screws.
- M. Place post caps over post tops and secure with construction adhesive or four finish nails.

#### 3.2 CLEANING

- A. Clean wood composite to remove stains:
  - Mold, mildew, and berry and leaf stains: Clean surfaces with conventional deck wash containing detergent or sodium hypochlorite.
  - Rust and ground-in dirt: Clean surfaces with cleaner containing oxalic or phosphoric acid. 2.
  - Oil and grease: Clean surfaces with detergent containing degreasing agent.

#### END OF SECTION

## MATERIAL SAFETY DATA SHEET

# TREX® WOOD-POLYMER LUMBER PRODUCTS

SDSTWP-01

DATE REVISED: 06-17-14

#### Section 1, Identification:

PRODUCT NAME:

TREX ACCENTS® and TREX SELECT® DECKING PRODUCTS

COLORS:

Woodland Brown

Madeira

Winchester Grey

Saddle

Pebble Grey

TREX TRANSCEND® DECKING PRODUCTS (including Trex

Porch Profiles)
Vintage Lantern
Gravel Path
Fire Pit
Tree House
Lava Rock
Spiced Rum
Rope Swing
Tiki Torch
Island Mist

TREX ENHANCE® DECKING PRODUCTS

Beach Dune Clam Shell Saddle

SUPPLIER:

TREX COMPANY, INC 245 CAPITOL LANE

WINCHESTER, VA 22602

PRODUCT AND MSDS INFORMATION:

800-289-8739

EMERGENCY CONTACT:

800-289-8739

## Section 2, Hazard(s) identification:

U.S. OSHA HAZARD COMMUNICATION STANDARD: This product may be used in applications that produce wood dust fibers. According to OSHA 29 CFR 1910.1200, certain wood fibers and carbon black are considered hazardous if the workplace airborne concentration exceeds the OSHA or ACGIH exposure limits (see section 8).

Section 3, Composition/information on ingredients:

Component	Appx. Wt %	OSHA PEL	CAS Registry	
Polyethylene	N/A	N/A	9002-88-4	
Zinc Oxide	N/A	5.0 mg/m <sup>3</sup>	1314-13-2	
TiO2	N/A	15.0 mg/m <sup>3</sup>	13463-67-7	
UV Additive	N/A	N/A	192268-64-7	
UV Additive	N/A	N/A	25973-55-1	
Carbon Black	N/A	3.5 mg/m <sup>3</sup>	1333-86-4	
Wood Fiber Dust	N/A	5,0 mg/m <sup>3</sup>	N/A	

NOTE: INGREDIENTS ARE CONTAINED IN A POLYETHYLENE MATRIX. Contains used thermoplastics and waste wood. Plastic obtained primarily from reclaimed/recycled grocery bags and stretch film; wood fiber is typically obtained from furniture makers and/or waste pallets. Standard product is approximately 40% - 50% thermoplastic and 50% - 60% wood fiber.

EFFECTS OF OVEREXPOSURE: Dust can irritate nose, throat and respiratory tract and may cause mechanical irritation in the eyes. Repeated exposures to certain wood dusts can produce allergic skin and respiratory reactions including asthma and rhinitis. Inhalation of certain wood fibers can cause nasal cancer. Carbon black is a possible carcinogen.

EMERGENCY RESPONSE DATA: Brown solid. Exposure to fire can generate toxic fumes. High dust levels may create potential for explosion. DOT ERG No. – NA

## Section 4, First-aid measure:

EYE CONTACT: Flush thoroughly with water. If irritation occurs, call a physician.

SKIN CONTACT: Wash contact areas with soap and water. Launder contaminated clothing before reuse.

INHALATION: If respiratory irritation, cough, shortness of breath, wheezing or chest tightness occurs after exposure to dust, remove from further exposure, seek immediate medical assistance and call for a physician.

INGESTION: Not expected to be a problem when ingested. If uncomfortable, seek medical assistance.

# Section 5, Fire-fighting measures:

Extinguishing Media: Water

Special Fire Fighting Procedures: Use water to keep fire exposed product cool. For fires in enclosed areas, fire fighters must use self-contained breathing apparatus.

Special Protective Equipment: For fires in enclosed areas, fire fighters must use self-contained breathing apparatus.

<u>Unusual Fire and Explosion Hazards:</u> Exposure to fire can generate toxic fumes. High dust levels may create potential for explosion. Flash Point C(F): > 370 (698) (Flame Spread Index = 60). Flammable limits - LEL: NA, UEL: N/A.

NFPA Hazard ID: Health: 0, Flammability: 1, Reactivity: 0.

<u>Hazardous Decomposition Products</u>: Smoke, Carbon Monoxide, Acetaldehyde, Formaldehyde, Formic Acid, Acetic Acid.

#### Section 6, Accidental release measures:

Notification Procedures: None

<u>Procedures if Material is Released or Spilled:</u> Where dusty conditions are created as a result of cutting or sawing, wet dust down then sweep or vacuum for disposal. Personnel performing cleanup must use protective equipment.

Environmental Precautions: Not expected to be a problem.

Personal Precautions: See Section 8

#### Section 7, Handling and storage:

Handling: TREX® WOOD-POLYMER LUMBER is not intended for load bearing or heavy structural applications. Please consult Trex® Wood-Polymer Lumber's code listing and company literature for proper usage. Trex® Wood-Polymer Lumber is heavier than most traditional lumber products, proper handling is required to prevent damage or injury. Do not burn in fireplace or use as firewood.

Storage: Do not store in open or unlabeled containers. Store away from strong oxidizing agents or combustible material.

#### Section 8, Exposure controls/personal protection:

Ventilation: Use in well-ventilated area.

Respiratory Protection: Approved dust respirators must be used for dusty conditions or if breathing of dusts is likely.

Eye Protection: Safety glasses with side shields, or goggles, should be worn to protect against dust particles.

Skin Protection: No special equipment required. Good personal hygiene practices should always be followed.

Source	TWA ppm_mg/m3	ppm mg/m3
OSHA	5	
OSHA	5	
OSHA	2.5	
ACGIH	5	10
	OSHA OSHA OSHA	Source         ppm mg/m3           OSHA         5           OSHA         5           OSHA         2.5

Beech/Oak Cert. Hardwood ACGIH 1

Carbon Black(1333-86-4) OSHA 3.5

ACGIH 3.5

Note: Limits shown for guidance only. Follow application regulations.

#### Section 9, Physical and chemical properties:

Typical physical properties are given below. Consult Product Data Sheet for specific details.

Appearance: Solid Color: Gray, Red, Brown

Odor: None

Odor Threshold - ppm: NE

pH: N/A

Boiling Point C(F): N/A

Melting Point C(F): > 110 (230) Flash Point C(F): > 370 (698)

Flammability: NE (Flame Spread Index = 60)

Auto Flammability: 395 (743) Explosive Properties: N/A Oxidizing Properties: N/A

Vapor Pressure-mmHg 20C: N/A

Vapor Density: NE Evaporation Rate: NE

Relative Density, 15/4 C: 0.96 Solubility in Water: Negligible Partition Coefficient: NE Viscosity at 40C, eSt: N/A

Viscosity at 100C, cSt: N/A Pour Point C (F): N/A Freezing Point C(F): NE

Volatile Organic Compound: NE

N/A = Not Applicable NE = Not Established D = Decomposes

For further technical information, contact your marketing representative.

#### Section 10, Stability and reactivity:

Stability (Thermal, Light, Etc.): Stable.

Conditions to Avoid: Heat and flame. Build up of dusts. Incompatibility (Materials to avoid): Strong oxidizers.

Hazardous Decomposition Products: Smoke, Carbon Monoxide, Acetaldehyde, Formaldehyde,

Formic Acid, Acetic Acid.

Hazardous Polymerization: Will not occur.

#### Section 11, Toxicological information:

Acute Toxicology

Oral Toxicity (Rats): Not established.

Dermal Toxicity (Rabbits): Not established. Inhalation Toxicity (Rats): Not established. Eye Irritation (Rabbits): Not established. Skin Irritation (Rabbits): Not established.

Chronic Toxicology (Summary)

IARC has determined that there is sufficient evidence to classify wood fiber as a human carcinogen. IARC has classified carbon black as a possible human carcinogen based on animal data. When wood fiber and carbon black are incorporated into a polymer matrix exposure is virtually eliminated.

#### Revision History:

Updated to reflect SDS standards

Date: 06-17-14