

BLACKLINEHHP TECHNICAL SPECIFICATION SHEET

Section 02826 - Black Colored Ranch Rail Fence

PART 1 – GENERAL

1.01 General Description

This specification covers the manufacture and installation of BlacklineHHP Ranch Rail Fence systems for use in residential, commercial, institutional and industrial settings where appearance and low maintenance qualities are required. The systems shall meet all the applicable building codes.

1.02 Scope of Work

- A. Installation of fence sections, fence posts and caps
- B. Installation of gates and related hardware

1.03 Related Work

- A. Concrete
- B. Cleanup
- C. Handrails

1.04 Quality Assurance

- A. Manufacturer's Quality Assurance Procedures Manual.
- B. Installation shall be by a manufacturer's licensed distributor/installer.

1.05 References (ASTM Standards)

Specific Gravity	ASTM D792
Tensile Strength	ASTM D638
Tensile Modulus	ASTM D638
Elongation	ASTM D638
Flexural Modulus	ASTM D790
Flexural Strength	ASTM D790
Rockwell Hardness	ASTM D785
Izod Notched Impact Strength	ASTM D256
Heat Distortion Temperature	ASTM D648
Coefficient Of Linear	
Thermal Expansion	ASTM D696

1.06 Submittals

- A. Installer shall submit layout drawings and product data.
- B. Installer shall submit product samples as requested below.
- C. Installer shall submit manufacturer's instructions for fence and gate installation.

1.07 Product Delivery and Storage

- A. Installer shall inspect the product for damage upon delivery to the job site and make appropriate arrangements to replace damaged material.
- B. Product shall be stored flat on the shipping pallets in an area free of construction traffic and high heat surfaces.
- C. Product shall not be unwrapped or unstrapped prior to installation. Product shall not be stood on end and leaned against walls or other structures.

1.08 Warranty

BlacklineHHP warrants its products to be free from defective workmanship and materials, when subject to proper and normal use: it is further warranted against peeling, flaking, rusting, blistering and abnormal weathering. See warranties for specific details.

PART 2 – PRODUCTS

2.01 Manufacturer

- A. BlacklineHHP, LLC
1325 Marrieta Ave
Bellingham, WA 98264
(360) 398-1824
(360) 398-1845 (Fax)
www.blacklineHHPprivacy.com

2.02 Product Production

- A. All profiles shall be extruded using dies designed internally and externally to be the same size and shape as the finished product.
- B. Profiles are only available in black.
- C. Extruded vinyl components shall have the ability to resist weather degradation. The color change index (ΔE) shall be less than 3.5 after 2400 hours when tested by the Xenon Arc Lamp apparatus under controlled conditions similar to SAE J1960.

- E. Components of the Rigid compound shall not exceed the limits shown:

Polyvinyl chloride resin	45 wt% max.
Carbon black	4 wt% max.
Calcium carbonate	8 wt% max.
Proprietary ingredients	43 wt% max.

- F. Furnished components shall conform to the following minimum properties measured in accordance with the referenced ASTM specification:

Specific Gravity	1.40 \pm 0.02
Ash Contents (%)	10% \pm 3%
Heat Distortion temp. ($^{\circ}$ C)	> 80 $^{\circ}$ C
Coefficient of Linear	
Thermal Expansion	< 50 x 10 ⁻⁶ in/in $^{\circ}$ C
Rockwell Hardness	> 105 on R-Scale
Tensile Strength	> 6,500 psi
Tensile Modulus	> 390,000 psi
Elongation (%)	> 100%
Flexural Modulus	> 400,000 psi
Izod Impact Strength	> 7 ft-lb/in @ 73.4 \pm 3.6 $^{\circ}$ F
Flash Point	> 736 $^{\circ}$ F
Autoignition Temperature	> 849 $^{\circ}$ F
Cell Classification (ASTMD4216)	143343310122

2.03 Fence Components

- A. Posts:
 1. 5" x 5" Post (0.150 Wall)
- Rails:
 1. 1.5" 5.5" Rail (0.80 Wall)
 2. 2" x 6" Rail (0.80 Wall)
- B. Post Caps: The installer shall submit catalog cuts of the manufacturer's full line of post caps for the architect's selection.
- C. Gates: Residential gates shall be made to match the rail selection and the various gate widths and heights shown on the drawings. The installer shall submit shop fabrication details prior to fabricating gates.

2.04 Aluminum Components

- A. Aluminum components shall be extruded to the manufacturer's design profile with 6063 alloy and annealed to T-6 requirements.
- B. Aluminum Inserts (inserts shall be installed in bottom and bottom and top rails, (unless specified otherwise):

2.06 Aluminum Inserts Applications: Aluminum rail stiffeners or post inserts shall be used where specified and shall be installed in accordance to the manufacturer's recommendations. The installer is referred to the manufacturer's approved shop drawings for all approved applications.

PART 3 – EXECUTION

3.01 Storage and Handling

- A. Store product on pallets off the ground and lying flat.
- B. Do not unwrap product until ready to install.

3.02 Installation: Install fence and gates in the locations shown on the drawings and in accordance with manufacturer's instructions and recommendations

3.03 Clean up:

- A. Installed rail shall be wiped down and all scuffmarks shall be buffed out to produce a uniform appearance as detailed in the manufacturer's installation specifications prior to acceptance of the installation.
- B. Installer shall remove all component packing material and related installation debris.