

PEXCO Davidson FG 300 Model EFX Channelizer
Post Material Specifications

1) **Design**

The channelizer post shall consist of a modified T-shaped tubular post a minimum of 3.00 inches wide by 2.00 inches deep, with 0.125 inch (min.) walls, comprised of flat front and curved rear surfaces and sides to create areas of opposing compression stresses on the inner and outer walls when impacted resulting in superior rebound. All channelizer posts shall be capable of sustaining a minimum of fifty (50) direct wheel-over and bumper impacts at 60 MPH (100 km/h) without damage to the post or the reflective sheeting applied to the post. All posts shall be easily replaceable. All posts shall be constructed of UV-stabilized thermo-plastic polyurethane (TPU) for superior durability, conforming to the following material specifications:

Property	ASTM Test	Results
Specific Gravity (min.)	D 792	1.10
Hardness (min.)	D 2240	90 A
Tear Strength (min lb/in.)	D 624, Die C	800
Tensile Strength @ yield, (min PSI)	D 412	4,000
Tensile Elongation @ break (min. %)	D 412	450
Cold Temp. Impact Test (-7° F)	FL/DOT	Pass
Gloss (min. units)	N/A	12.1

2) **Bases**

Channelizer posts shall mount to a base unit with two (2) nylon locking pins. For highest visibility and durability, posts shall be mounted to bases or curbs of the same color as the corresponding lane line (yellow & yellow, white & white, etc.) and shall be 1.5 # in weight. All bases shall be constructed of a UV-stable high-impact thermo-plastic styrenic alloy conforming to the following material specifications:

Property	ASTM Test	Results
Specific Gravity (min.)	D 792	1.02
Gardner Impact (min.)	N/A	160
Flexural Strength (min.)	D 790	5,500

3) **Florescent and Standard Colors**

Channelizer posts and bases shall be constructed of UV-stabilized polymers and colors. The color shall be solid throughout and stabilized to resist UV degradation. In construction work zone areas where orange devices are used, all materials shall be Florescent Orange to improve visibility in low light conditions.

4) Locking Pins

The channelizer posts shall be secured to the base units with two (2) rust-proof black nylon locking pins to prevent dislocation when posts are impacted and to ease replacement of old posts.

5) Reflective Sheeting

All posts shall have retro-reflective sheeting applied. The minimum reflective sheeting shall be two (2) 6-inch wide wraps of sheeting the same color as the post applied one (1) inch down from the top of the post with a six (6) inch gap between wraps. The sheeting shall meet State specifications for reflectivity.

6) Lengths

Channelizer posts shall be available in lengths from 16 to 48 inches, as specified in the construction plans or procurement details.

7) Installation

Channelizer posts shall be secured to the roadway with removable and reusable one-piece anchor bolts with a finished hex head, integral washer, dual lead threads and chamfered tip. One-piece bolts shall be used to eliminate improper assembly; dual-thread bolts shall be used to prevent bolts spinning in holes when tightened. All channelizer posts shall be completely removable with standard power tools. Alternatively, posts shall be adhered to the roadway with approved bituminous adhesive or pressure-sensitive synthetic butyl rubber pads, min. 0.125" thick.

8) Packaging

Channelizer posts and bases shall be packaged in boxes of 25 pieces. A sufficient quantity of pins shall be supplied to secure all posts to the bases.

9) NCHRP 350 Acceptance

The channelizer posts shall be fully crash-tested on the AASHTO's **NTPEP** Test Deck and meet requirements for **Category 1** devices as specified in **NCHRP Report # 350**. All channelizer posts shall have the acceptance of the U.S. Department of Transportation, Federal Highway Administration. Certifications of acceptance to these standards must be supplied by the manufacturer upon request.

10) Warranty

The channelizer posts shall be covered by warranty for a period of one (1) year from the date of purchase covering breakage of the posts; a copy of the manufacturers' warranty document shall be provided by the upon request.

11) Impact Testing

Field testing shall be conducted by an independent testing facility certified by the American Association for Laboratory Accreditation (A2LA), which conforms to the

requirements of ISO/IEC 17024:2003. Documentation of the testing shall be provided with any request for product acceptance for use on the roadways.

12) Quality

Posts shall be manufactured by an ISO 9001 compliant firm in good standing; evidence of ISO compliance shall be presented as a pre-condition for acceptance for use.

13) Manufacturer

The device above is manufactured by Pexco LLC - Davidson Traffic Control Products, Tacoma, WA, USA, phone (877) 335-4638, email hwysales@pexco.com.