

PRODUCT INFORMATION - TECHNICAL SPECIFICATION

STEEL-FLEX GUARDRAIL DELINEATOR

Definition

The Steel-Flex® is a unique All Steel Flexible Guardrail Delineator which is capable of withstanding repeated collisions by vehicles with minimal damage to the post or vehicle.

The Steel-Flex® Flexible All Steel Delineator Post complies with the following standards

British & European Standard EN 12899-3:2007
Australian Standard AS1742.2-1994

The physical and mechanical properties of the product shall conform to the following clauses.

1. DIMENSION AND SHAPE

1.1 Dimension and shape of the Steel-Flex® Flexible All Steel Delineator Post shall be as follows:

Width	- Overall width (facing traffic)	= 103mm or 4"
	- Delineator face	= 103mm or 4"
Depth		= 10mm or 3/8"
Length		= 380mm or 15"
Thickness (After Surface Coating)		= 1.2mm or 18 g
Shape	- "C" channel Radius 125mm or 5"	
Reflector size		= As required

Tolerances:

- a) Width – Length
The tolerance value of the measures specified in clause 1.1, for width and length shall be +/- 5%
- b) Curvature Tolerance
Curvature tolerance shall not exceed + 3mm or 1/8"
- c) Thickness Tolerance
The tolerance value for the thickness of the delineator is +/- 5%

2. GENERAL PROPERTIES

2.1 General:

The standards specified in this technical specification shall comply with the following tests and criteria.

a) Durability

The Steel-Flex® Flexible All Steel Guardrail Delineator is capable of retaining a minimum of 75% of it's colour, appearance and physical properties for 10 years when exposed to the extremes of weather conditions.

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b) Material

The Steel-Flex® Flexible All Steel Guardrail Delineator is made from 1.2mm or 18 g Flexible Steel.

c) Finish and Colour

All faces of the Steel-Flex® Flexible All Steel Guardrail Delineator are a smooth gloss White Powder Coat Finish over a Hot Dip Galvanized coating over the entire length. It shall exhibit good workmanship and shall be free of roughness, sharp edges, discolouration and other objectionable marks or defects which may effect appearance, serviceability and attachment of Reflectors.

d) Wind Deflection

The Steel-Flex® Flexible All Steel Delineator Post stands vertical when installed. Testing has shown that the post will not deflect more than 1 ¼” when subjected to wind speeds of 45m or 50 y /sec. (165kph or 100 mph) on the front face (convex surface) of the post.

e) Bending Properties

The load required to bend each post to an angle of 90deg. should not be less than 30 N.

f) Impact Resistance

The Steel-Flex® Flexible All Steel Guardrail Delineator returns to vertical automatically after vehicle impact. It has been tested to 10 impacts from a passenger type vehicle at 100kph or 60mph without compromising the integrity of the post.

g) Surface Treatment

All faces of the Steel-Flex® Flexible All Steel Delineator Posts are a smooth gloss white Powder Coat Finish to a min. thickness of 70 microns over a Hot Dip Galvanized anti-corrosive treatment to a min. thickness of 70 microns and generally require no maintenance.

h) Weathering Resistance

Steel-Flex® Flexible All Steel Delineator Posts are coated with the highest grade Polyester Powder with exceptional UV resistance and 10 year superior weathering Characteristics tested to comply with the following standards:

Impact Resistance (ASTM D - 2794)

Adhesion (ISO 2815)

2000 hr Salt Spray (ASTM B - 117)

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i) Water Absorption

Not Applicable due to the Polyester Coating

j) Flame Resistance

Non Flammable

k) Reflectors

Steel-Flex® Flexible All Steel Guardrail Delineator shall be fitted with reflectors complying With ASTM D 4956-94 Retroreflective Sheets for Traffic Signs Type 111, AS.1906.1 and all relevant British and European standards.

l) Packaging and Handling

All Steel-Flex® Flexible All Steel Delineator Posts are packaged in boxes of 30 to Prevent damage during normal transport conditions. Total weight = 2.5kg or 6 lbs

3. TESTS

3.1 Heat Resistance

The post will be conditioned for 2 hours at + 60° C. The conditioned post will then be capable of straightening itself within 30 seconds when bent at 90° from one end of the post in the direction of normal face (convex surface)

This test will be carried out five times within 2 minutes, after the sample has been removed from the stove.

Result of Steel-Flex = Pass (1 second each bend)

3.2 Cold Resistance

The post will be conditioned for 2 hours at - 10° C. The conditioned post will then be Capable of straightening itself within 30 seconds when bent at 90° 800mm from one end of the post in the direction of normal face (convex surface)

This test will be carried out five times within 2 minutes, after the sample has been removed from the cooler.

Result of Steel-Flex = Pass (1 second each bend)

3.3 Steel Ball Test

The post will be conditioned for 2 hours at - 10° C. The conditioned post shall show no signs of fracturing or splitting when a 1 kg steel ball is dropped from a height of 1500mm through a frictionless guide to impact the surface of the post.

The post shall be flat in a horizontal position supported at both ends.

This test will be carried out five times within 10 minutes, after the sample has been removed from the cooler.

Result of Steel-Flex = Pass (1 second each bend)