

TECHNICAL INFORMATION

• Product Load Ratings

Load rating plays a major role in selecting the right product for your application. For example, products installed in the roadway require a higher load rating due to the presence of vehicular traffic than those installed in greenbelt applications which typically encounter only foot traffic. The load rating of a particular box or vault system is based on a combination of product design, materials and manufacturing methods of all its components, i.e., cover, box or vault, extensions, etc. Two identical

boxes with different covers, i.e., one made from FRP and the other from PC would result in different load rating.

To assist you in selecting the right product for your application we have provided the following load specifications for your reference. They are divided into three major product categories. In addition, load ratings are also included on each product page. For product with load ratings not listed please consult our factory.

Product Application	Load Category	Cover Rating (lbs.)	Live Load (lbs.) Dead Weight on cover	Elastic Design Load (lbs.) Includes 30% Impact Factor	AASHTO w/2.17 Safety Factor*		ASTM-C857 Impact Factors Applied*	
					Test Load (lbs)	Test Area (in.)	Test Load (lbs)	Test Area (in.)
Greenbelt – HDPE	A.03	300/ft	300/ft	–	–	–	300/ft	10 x 10
Greenbelt – PC/FRP	A.03	5,000	2,500	3,250	–	–	–	–
Sidewalk/Parking Lot/ Driveway	A8	10,400	8,000	10,400	–	–	10,400	10 x 10**
	H10	22,568	8,000	10,400	22,568	10 x 20	–	–
	A16	22,568	16,000	20,800	–	–	20,800	10 x 20
Roadway	H20	45,000	16,000	20,800	45,136	10 x 20	–	–

Notes:

* AASHTO load ratings require a safety factor of 2.17 applied to the effective load to allow for potential overload conditions in high traffic areas. The ASTM-C857 ratings do not consider product location, only the effective load testing of the product.

** Products designed for sidewalk applications meet or exceed Western Underground Committee Guide 3.6 ratings.

Recommendations

1) For roadway installations, NewBasis recommends the use of AASHTO H20 rated products with cast iron rings and covers only.

2) In areas abutting the roadway, especially those not protected by curbing, use AASHTO guidelines detailing traffic load zoning to assist you in selecting the correct product for the application. Products with standard Polymer Concrete covers, rated H10 and H20, are recommended for these areas.

3) Products with standard Polymer Concrete covers, rated H10 or A16, are recommended for use in areas used for moderate size vehicle parking or other low speed, medium load situations.

4) Products with an A8 load rating are designed for use in sidewalks and other areas typically protected from direct and intentional vehicular traffic, but where they may be exposed to incidental traffic by small to medium vehicles.

5) Products with an A.03 load rating are designed for pedestrian traffic areas only, where no passenger size vehicles are likely to occur.