

KDeb Mfg Inc.
2246 Hwy 80 W
Morton, MS 39117

Grassy Pavers

American with Disabilities Act (ADA)

ASTM F 1951-99 Criteria

The Grassy Paver surpasses the performance requirements of ASTM F 1951-99. When considering the compliance of a surfacing material with regards to the American with Disabilities Act (ADA), the standard specification for determination of Accessibility is the ASTM F 1951-99 criteria. The testing parameters are set by the American Society for Testing and Materials. The ASTM 1951-99 standard measures the maneuverability of a wheelchair across the surface of a product or material. The standard measures the accessibility of a surface by measuring the work an individual must exert to propel a wheelchair across the surface, including straight ahead and turning movements, using a force wheel on a rehabilitation wheelchair as a measuring device. To meet the standard the force required must be less than that which is required to propel the wheelchair up a ramp with a slope of 1:14.

The Grassy Paver exceeds the performance requirements of ASTM F 1951-99. The standard was tested on the force required for the first straight propulsion and then turning on the Grassy Paver surface. Testing was completed for both a Grassy Paver turf and aggregate fill. The Grassy Paver results surpassed the guidelines of the requirement with a Work Ratio¹ less than 1.00. On straight line propulsion the Grassy Paver turf fill the work ratio was .351 and on turning the work ratio was .532. With an aggregate fill the work ratios were even lower at .340 and .501 respectively. Based on the above testing, it can be deduced that use of soil, sand, turf, aggregate, wood chips or crushed rubber fill will meet the ASTM F 1951-99 criteria for ADA accessibility.

¹The Work Ratio = Average Force on Grassy Paver / Average Force on 1.14 Slope (smooth surface ramp) measured in Newtons Per Meter.