

SignaRoad Technical Data

Summary:

SignaRoad is a 100% HDPE heavy-duty composite matting system manufactured by Signature Systems Group, LLC and designed to withstand and distribute extreme weights and rolling loads over a large surface area. SignaRoad is ideal for creating portable roadways and work platforms over sensitive and/or adverse surfaces. SignaRoad incorporates a 4-sided overlapping flange to distribute weights, and an integrated locking system to ensure mats are securely connected together.

Dimensions:

Length	6.83ft / 2.08m
Width	10ft / 3m
Thickness	2.5in / 6.35cm
Useable surface (platform)	6.17ft x 9.33ft / 1.88m x 2.84m
Useable surface (roadway)	6.83ft x 10ft / 2.08m x 3m
Weight	520lbs / 235.9kg

Surface traction:

SignaRoad is a dual-sided mat that features a vehicular traction surface on one side and a pedestrian traction surface on the other. Mats can be used on either side and are connectable in any direction.

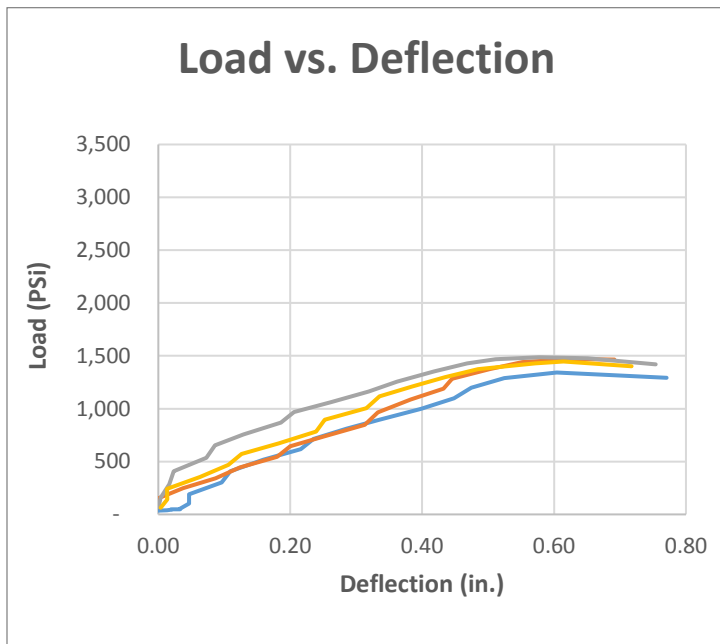




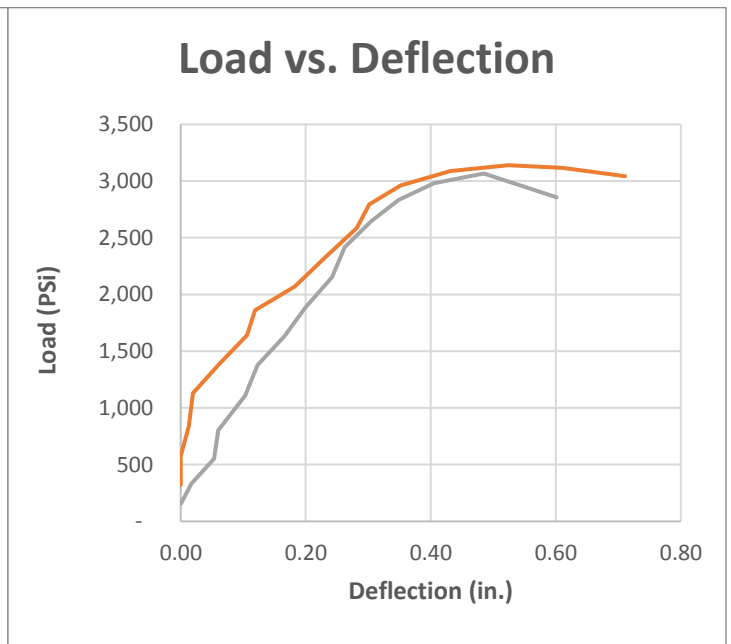
Compression Testing:

SignaRoad was tested according to a modified ASTM compression test. SignaRoad was subjected to an increasing compressive force using a 4 in. diameter steel plate (surface area 12.57 sq.in.), measuring deflection at the increasing loads. Tests were carried out under controlled conditions with the temperature at 70F. (Normal Temperature) and 20F. (Cold Temperature). Testing was conducted all the way to product failure over a set amount of sample pieces, then averaged to achieve the following results.

Normal Temperature:



Cold Temperature:

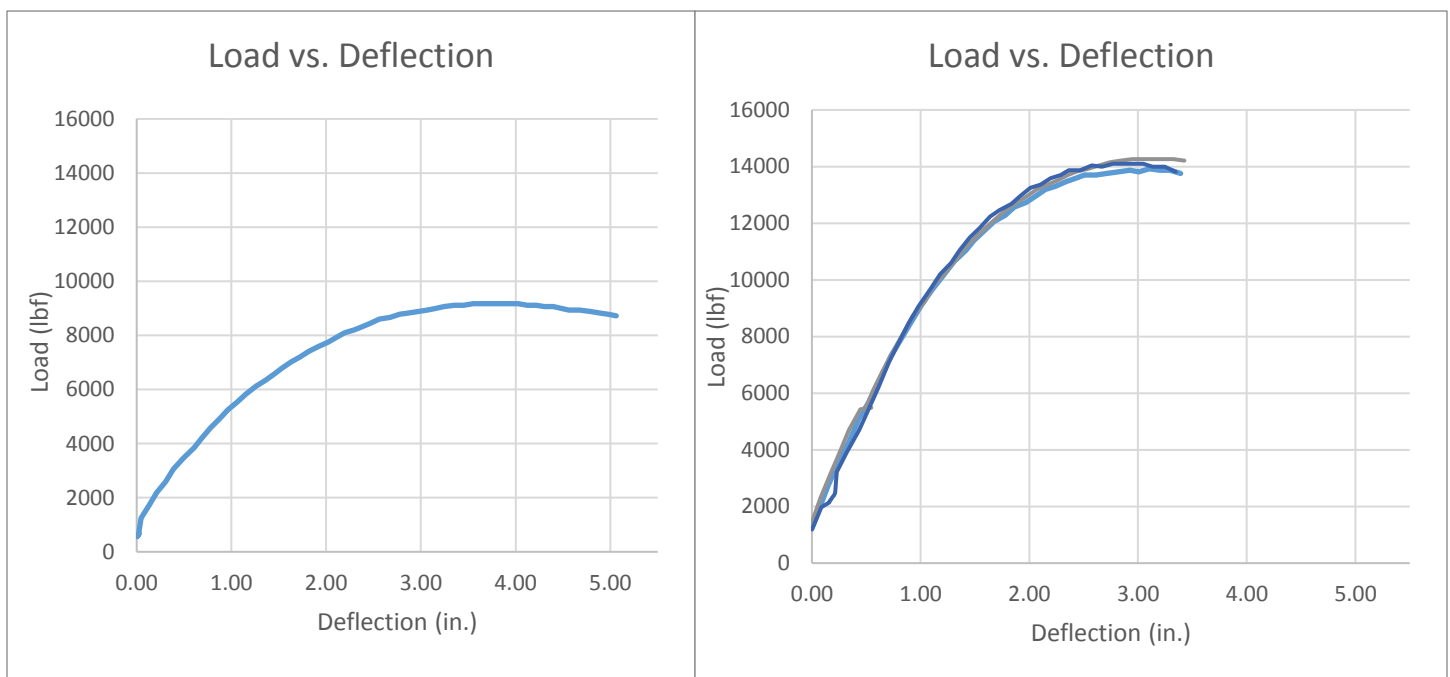


**Note that the compression test was carried out with the SignaRoad sample placed on a smooth, rigid surface. Field measurements will vary due to ground conditions.*

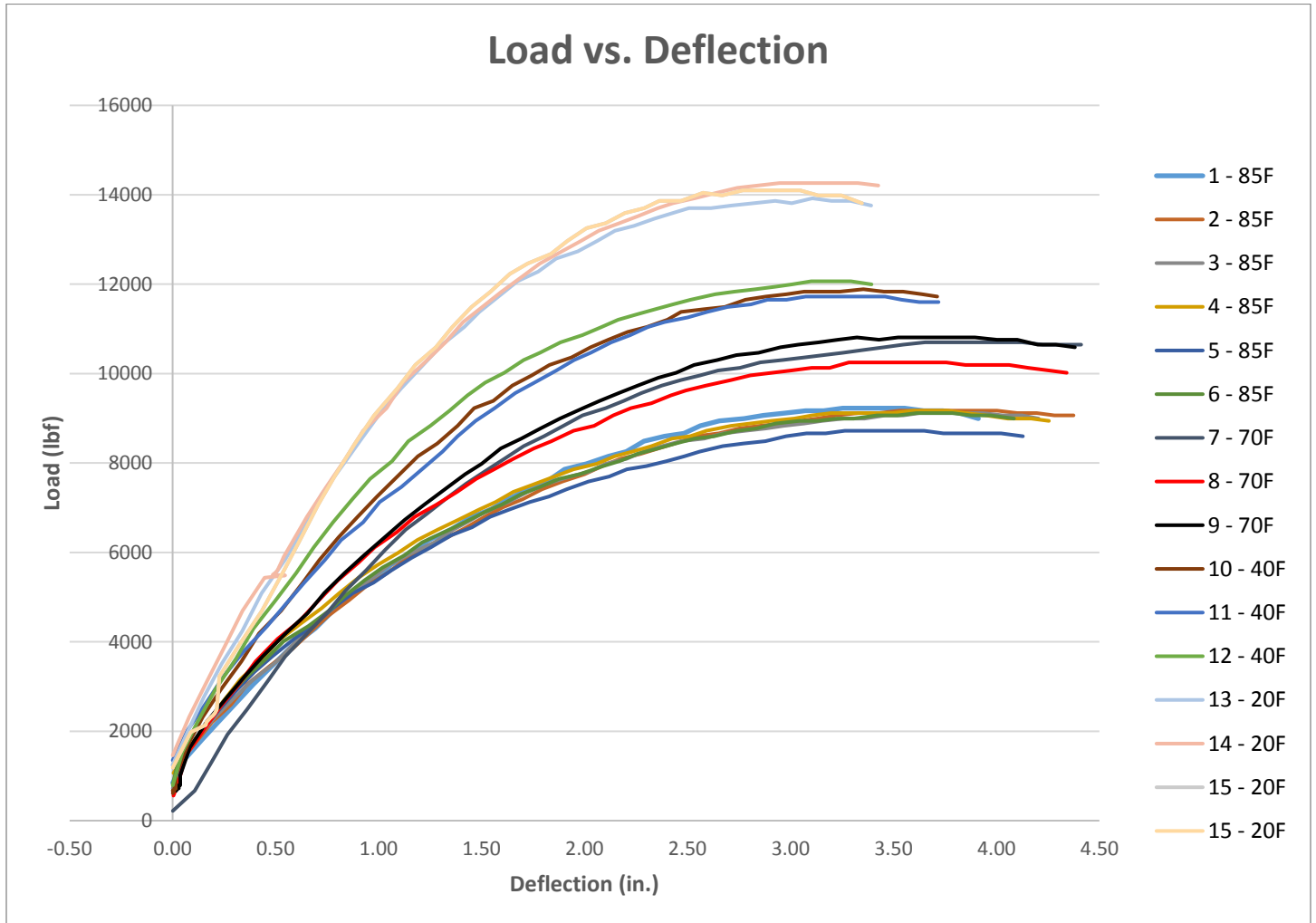


Flexural Testing:

SignaRoad was tested according to a modified ASTM-D790 flexural bending test. SignaRoad was modified to a 18in. wide sample and supported at 24in. SignaRoad was then subjected to an increasing bending force, measuring deflection at the increasing loads. Tests were carried out under controlled conditions with the temperature at 80F (High Temperature) and 20F (Cold Temperature). Testing was conducted all the way to product failure over a set amount of sample pieces, then averaged to achieve the following results.



Below is a broader view of the performance under certain temperatures with more averaged data put into 1 graph:



Typical Material Properties:

Chemical Resistance	HDPE
Acids - concentrated	Good - Fair
Acids - dilute	Good
Alcohols	Good
Alkalis	Good
Greases and Oils	Good - Fair
Mechanical Properties	Value
Density (g/cm ³)	1.1
Notched Izod Impact ASTM D618a	8.05 ft-lb/in (10.91 Nm)
Impact Resistance ASTM D4226	143 in-lb/ft (16.16 Nm)
Water absorption (%)	<0.01
Color	Beige
Odor	none