

SYNTEEN SF190

SOIL REINFORCEMENT GEOGRID

SF190 is a uniaxial geogrid composed of high molecular weight, high tenacity multifilament polyester yarns that are woven into a stable network placed under tension and then coated with PVC to provide long-term durability. SF Geogrids are inert to biological degradation and are resistant to naturally encountered chemicals, alkalis and acids. Synteen SF series geogrids are used in a wide variety of soil reinforcement applications including segmental retaining walls (SRW), reinforced soil slopes (RSS), and mechanically stabilized earth (MSE) walls.

MECHANICAL PROPERTIES	TEST METHOD	UNIT	MINIMUM AVERAGE ROLL VALUE (MARV) ¹
Ultimate Tensile Strength (MD)	ASTM D 6637	lbs/ft (kN/m)	20,560 (300.0)
Creep Reduced Strength (MD) ²	ASTM D 5262	lbs/ft (kN/m)	13,615.9 (198.7)
Long Term Design Strength (MD) ³	NCMA 97	lbs/ft (kN/m)	11,788.7 (172.0)

PHYSICAL PROPERTIES	TEST METHOD	UNIT	ROLL VALUE
Aperture Size	Measured Value	in X in (mm X mm)	0.51 X 1.00 (13.0 X 25.4)
Roll Dimensions ⁴ (Width x Length)	Measured Value	ft (m)	12 X 150 (3.65 X 45.72)
Roll Area	Measured Value	Yd ² (m ²)	200 (167)

¹ Minimum Average Roll Values (MARV) are calculated as the typical minus two (2) standard deviations. Statistically, it yields a 97.7% degree of confidence that any sample taken from quality assurance testing will exceed the value reported.

² Creep Reduced Strength is based on a 75-year design life at 20 °C. $RF_{CR} = 1.51$ is used based on NTPEP evaluation report.

³ Long-term design strength (LTDS) is calculated for a 75-year design life at 20 °C, silty sand ($D_{50} = 0.9\text{mm}$) backfill, and standard soil pH range 3 - 9. $RF_{CR} = 1.51$; $RF_{ID} = 1.05$; $RF_D = 1.1$

⁴ Custom roll widths and lengths are available upon request.

NTPEP evaluation report is available upon request.

LTDS and Reduction factors for the project specific requirements such as design life, soil type and soil pH beyond standard range 3-9 are available upon request.

SYNTEEN Technical Fabrics reserves right to amend product specifications without notice. Users / Buyers shall verify the product compliance with the project specifications or design requirements.