

STP 1379

***Grips, Clamps, Clamping  
Techniques, and Strain  
Measurement for Testing of  
Geosynthetics***

*Peter E. Stevenson, editor*

ASTM Stock Number: STP1379



ASTM  
100 Barr Harbor Drive  
West Conshohocken, PA 19428-2959

Printed in the U.S.A.

# CONTENTS

Overview	vii
GRIPS, CLAMPS, AND CLAMPING TECHNIQUES	
Geosynthetic Stress-Strain Curves: Practical Features and Observations—I. D. PEGGS	003
Wide-Width Geomembrane Testing—G. R. KOERNER	018
Tensile Strength and Clamping of Geogrids—J. MÜLLER-ROCHHOLZ AND C. RECKER	028
Effect of Gage Length and Test Speed on the Measured Tensile Properties of Geosynthetic Reinforcements—A. D. KELKAR, P. E. STEVENSON, T. R. SKOCHDOPOLE, AND S. N. YARMOLENKO	037
Effect of Gripping Technique on Tensile, Tensile Creep and Tensile Creep-Rupture Results for a High Tenacity Polyester Yarn—J. S. THORNTON, S. R. ALLEN, AND S. L. ARNETT	047
Comparative Study of Roller and Wedge Grips for Tensile Testing of High Strength Fabrics with Laser Extensometry: Comparisons to LVDT and Crosshead Extension—T. R. SKOCHDOPOLE, L. CASSADY, D. PIHS, AND P. E. STEVENSON	068
STRAIN MEASUREMENT	
Wide-Width Geotextile Testing with Video Extensometry—D. JONES	083
Effect of Clamping Mechanism on Pullout and Confined Extension Tests—K. FARRAG AND M. MORVANT	089
Strain Gauging Geotextiles Using External Gauge Attachment Method—S. H. CHEW, W. K. WONG, C. C. NG, S. A. TAN, AND G. P. KARUNARATNE	097
GRIPPING AND STRAIN MEASUREMENT IN GEOTECHNICAL TESTS	
Wide-Width Strength Test for Nonwoven Geotextiles Without Using Grips—C. ELVIDGE AND G. RAYMOND	113
The Influence Factors Study for Geogrid Pullout Test—D. T. T. CHANG, F. C. CHANG, G. S. YANG, AND C. Y. YAN	129
Good Laboratory Practice in the Creep Testing of Geosynthetics—J. GREENWOOD AND J. M. PALMER	143