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Standard Guide for Identification, Storage, and Handling of Geosynthetic Rolls and Samples[1]

This standard is issued under the fixed designation D4873/D4873M; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ε) indicates an editorial change since the last revision or reapproval.

1. Scope

1.1 This guide provides guidelines for the identification and packaging of rolled geosynthetics by the manufacturer and for the handling and storage of geosynthetics by the end user. This guide is not to be considered as all encompassing since each project involving geosynthetics presents its own challenges and special conditions. Geosynthetic samples are often taken at manufacturer, supplier, or at the job site primarily for the purpose of conformance testing and verification. These samples should be properly labeled for identification purposes.

1.2 This guide is intended to aid manufacturers, suppliers, purchasers, and users of geosynthetics for identification, handling, and storage.

1.3 This guide is not applicable for factory-fabricated panels due to a different set of identifications for the panel by the fabricator. For fabricated geomembrane panels, refer to Guide D7865.

1.4 This guide is not intended for geosynthetic clay liners. For GCLs, refer to Guide D5888.

1.5 This guide is also applicable to geosynthetic samples.

1.6 Each type of geosynthetic is listed by section to address specific requirements.

Geotextiles – Section 5
Geogrids – Section 6
Geomembrane Rolls – Section 7
Geonets – Section 8
Geocomposites – Section 9
Rolled Erosion Control Products – Section 10
Sediment Retention Devices – Section 11

1.7 The values stated in either SI units or inch-pound units are to be regarded separately as standard. The values stated in each system may not be exact equivalents; therefore, each system shall be used independently of the other. Combining values from the two systems may result in non-conformance with the standard.

1.8 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.*

1.9 *This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.*

2. Referenced Documents

2.1 *ASTM Standards:*[2]

D123 Terminology Relating to Textiles
D4354 Practice for Sampling of Geosynthetics and Rolled Erosion Control Products (RECPs) for Testing
D4439 Terminology for Geosynthetics
D5888 Guide for Storage and Handling of Geosynthetic Clay Liners
D7865 Guide for Identification, Packaging, Handling, Storage and Deployment of Fabricated Geomembrane Panels

3. Terminology

3.1 *Definitions:*

3.1.1 For definitions of geosynthetic terms, refer to Terminology D4439.

3.1.2 For definitions of textile terms, refer to Terminology D123.

3.2 *Definitions of Terms Specific to This Standard:*

3.2.1 *core, n*—a mandrel of cardboard, foam, or other material on which geosynthetics are rolled during manufacturing to facilitate handling.

3.2.2 *sample, n*—(*1*) a portion of material which is taken for testing or for record purposes. (See also sample, lot; sample, laboratory; and specimen.) (*2*) a group of specimens used, or of observations made, which provide information that can be used

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[2] For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

for making statistical inferences about the population(s) from which the specimens are drawn.

3.2.3 *supplier, n*—the person or organization from whom a geosynthetic is purchased or otherwise obtained.

3.2.3.1 *Discussion*—The supplier is frequently the manufacturer of the geosynthetic, but need not be. A supplier who is not the manufacturer is expected to ensure that the responsibilities of the manufacturer are fully met.

4. Significance and Use

4.1 For a geosynthetic to be properly used it must be adequately identified and packaged. It must be handled and stored in such a way that its physical property values are not degraded. Failure to follow good practice may result in the unnecessary failure of the geosynthetic in a properly designed application.

4.2 This guide is not intended to replace project-specific storage, handling, identification, packaging, or installation requirements or quality assurance programs.

5. Procedure – Geotextiles

5.1 *Packaging and Identification:*

5.1.1 When cores are required, use those that have a crushing strength sufficient to avoid collapse or other damage in normal use.

5.1.2 Cover each roll with an opaque wrapping material for protection from damage due to shipment, water, sunlight, or contaminants while being stored or handled in accordance with this guide.

5.1.3 Identify each roll with a durable, gummed label, or equivalent, clearly readable on the roll packaging or on the inside of the core. Roll identification should include, at minimum, the name of the manufacturer or supplier, product or style number, and the unique roll number. Identification should also include the width and length of roll. Any other unique characteristics should be clearly identified. For rolls with no identification on the inside of the core, once the roll is unwrapped or samples taken, labels on the outer wrap of the roll packaging should be removed and placed inside the roll for traceability. All designations should be readable for clear identification.

NOTE 1—Rolls bundled or strapped as a single unit could be regarded as a single roll for identification purposes provided all the rolls remain as a single unit received by the end user.

5.2 *Receiving and Storing at the Job Site:*

5.2.1 While unloading or transferring the geotextile from one location to another, prevent damage to the wrapping and to the geotextile itself. If practicable, use fork lift trucks fitted with poles that can be inserted into the cores of rolls. Be sure that the poles are at least two-thirds the length of the rolls to avoid breaking the cores and possibly damaging the geotextile. Slings may be used to carry relatively rigid rolls provided that the slings do not cause damage to the rolls. Do not drag the rolls as damage may result.

5.2.2 Geotextiles, when possible, should be stored elevated off of the ground and covered to ensure adequate protection from the following:

5.2.2.1 Precipitation (because geotextile roll goods saturation leads to handling difficulties),

5.2.2.2 Ultraviolet radiation,

5.2.2.3 Undesirable chemicals for any extended period of time,

5.2.2.4 Flames, including welding sparks,

5.2.2.5 Temperatures in excess of 160 °F [71 °C] and below 32 °F [0 °C] (see Note 2), and

5.2.2.6 Any other environmental condition that may damage the physical property values of the geotextile.

NOTE 2—Geotextiles may contain enough moisture to cause them to stiffen when frozen, which interferes with placement.

5.3 *On-Site Handling:*

5.3.1 While transferring geotextiles from one location to another, prevent damage to the wrapping and to the geotextile itself. Follow the cautions specified in 5.2.1.

5.3.2 Before unrolling a roll at the job site, verify its identification. While unrolling the geotextile, inspect it for damage or defects.

5.3.3 Follow all applicable site or project specifications and manufacturer's recommendations for handling and installation.

5.3.4 Correct any damage that occurs during storage or installation as directed by the project specifications and the engineer in charge of installation.

5.4 *Sample Identification:*

5.4.1 If samples are to be taken at the job site, follow removal of wrap and identification of roll according to 5.1.3. Outer layer of geotextile should be removed before sample is taken following sampling procedures as prescribed in Practice D4354. Cut sample according to specified test method(s).

5.4.2 Identify each sample with a durable, gummed label, or equivalent including, at a minimum, the sample designation, the name of the manufacturer or supplier, product or style number, the lot number or roll number, or both, location sampled or project name or project identification number, sampled by, and date sampled. If third party is responsible for sampling, include with the name, the address, and telephone number.

5.4.3 Sample should be suitably packaged for shipping to prevent distortion. Sample should be packaged in suitable wrapping material for protection from damage due to shipping, water, sunlight, or contaminants.

6. Procedure – Geogrids

6.1 *Packaging and Identification:*

6.1.1 When cores are required, use those that have a crushing strength sufficient to avoid collapse or other damage in normal use.

6.1.2 As required, cover each roll with a wrapping material for protection from damage due to shipment, water, sunlight, or contaminants while being stored or handled in accordance with this guide.

6.1.3 Identify each roll with a durable, gummed label, tape, or equivalent, either clearly readable on the roll packaging, on the outer wrap when no packaging is required, or on the inside of the core. Roll identification should include, at minimum, the name of the manufacturer or supplier, product or style number, and the unique roll number. Identification should also include

the width and length of the roll. Any other unique characteristics should be clearly identified. For rolls with no identification on the inside of the core, once the roll is unwrapped or samples taken, labels on the outer wrap of the roll packaging should be removed and placed inside the roll for traceability. All designations should be readable for clear identification.

NOTE 3—Rolls bundled or strapped as a single unit could be regarded as a single roll for identification purposes, provided all the rolls remain as a single unit received by the end user.

6.2 *Receiving and Storing at the Job Site:*

6.2.1 While unloading or transferring from one location to another, prevent damage to the wrapping, if required, and to the geogrid itself. If practicable, use fork lift trucks fitted with poles that can be inserted into the cores of rolls. Be sure that the poles are at least two-thirds the length of the rolls to avoid breaking the cores and possibly damaging the geogrid. Slings may be used to carry relatively rigid rolls provided that the slings do not cause damage to the rolls. Do not drag the rolls as damage may result.

6.2.2 Geogrids, when possible, should be stored elevated off of the ground and covered to ensure adequate protection from the following:

6.2.2.1 Precipitation,

6.2.2.2 Ultraviolet radiation,

6.2.2.3 Undesirable chemicals for any extended period of time,

6.2.2.4 Flames, including welding sparks,

6.2.2.5 Temperatures in excess of 160 °F [71 °C] and below 32 °F [0 °C] (see Note 2), and

6.2.2.6 Any other environmental condition that may damage the physical property values.

6.3 *On-Site Handling:*

6.3.1 While transferring geogrids from one location to another, prevent damage to the wrapping (if required) and to the geogrid itself. Follow the cautions specified in 6.2.1.

6.3.2 Before unrolling a roll at the job site, verify its identification. While unrolling the geogrid, inspect it for damage or defects.

6.3.3 Follow all applicable site or project specifications and manufacturer's recommendations for handling and installation of geogrids.

6.3.4 Correct any damage that occurs during storage or installation as directed by the project specifications and the engineer in charge of installation.

6.4 *Sample Identification:*

6.4.1 If samples are to be taken at the job site, follow sample identification according to 6.1.3. Outer layer of geogrid should be removed before sample is taken following sampling procedures as prescribed in Practice D4354. Cut sample according to specified test method(s).

6.4.2 Identify each sample with a durable, gummed label, or equivalent including, at a minimum, the sample designation, the name of the manufacturer or supplier, product or style number, the lot number or roll number, or both, location sampled or project name or project identification number, sampled by, and date sampled. If third party is responsible for sampling, include with the name, the address, and telephone number.

6.4.3 Sample should be suitably packaged for shipping to prevent distortion. Sample should be packaged in suitable wrapping material for protection from damage due to shipping, water, sunlight, or contaminants.

7. Procedure – Geomembrane Rolls

7.1 *Packaging and Identification:*

7.1.1 Cores shall have a crushing strength sufficient to avoid collapse or other damage in normal use.

7.1.2 Identify each roll with a durable, gummed label, or equivalent, either clearly readable on the outer wrap or on the inside of the core. Roll identification should include, at minimum, the name of the manufacturer or supplier, product or style number, and the unique roll number. Identification should also include the width and length of the roll. Any other unique characteristics should be clearly identified. For rolls with no identification on the inside of the core, once samples are taken, labels on the outer wrap should be removed and placed inside the core for traceability. All designations should be readable for clear identification.

NOTE 4—Rolls bundled or strapped as a single unit could be regarded as a single roll for identification purposes, provided all the rolls remain as a single unit received by the end user.

7.2 *Receiving and Storing at the Job Site:*

7.2.1 While unloading or transferring the geomembrane rolls from one location to another, prevent damage to the geosynthetic itself. If practicable, use fork lift trucks fitted with poles that can be inserted into the cores of rolls. Be sure that the poles are at least two-thirds the length of the rolls to avoid breaking the cores and possibly damaging the geosynthetic. Slings may be used to carry relatively rigid rolls provided that the slings do not cause damage to the geomembrane rolls. Do not drag the rolls as damage may result.

7.2.2 Geomembrane rolls, when possible, should be stored elevated off of the ground and covered to ensure adequate protection from the following:

7.2.2.1 Ultraviolet radiation,

7.2.2.2 Undesirable chemicals for any extended period of time,

7.2.2.3 Flames, including welding sparks,

7.2.2.4 Temperatures in excess of 160 °F [71 °C] and below 32 °F [0 °C] (see Note 2), and

7.2.2.5 Any other environmental condition that may damage the physical property values.

7.3 *On-Site Handling:*

7.3.1 While transferring geomembrane rolls from one location to another, prevent damage to the geosynthetic itself. Follow the cautions specified in 7.2.1.

7.3.2 Before unrolling a roll at the job site, verify its identification. While unrolling the geomembrane, inspect it for damage or defects.

7.3.3 Follow all applicable site or project specifications and manufacturer's recommendations for handling and installation of geosynthetics.

7.3.4 Correct any damage that occurs during storage or installation as directed by the project specifications and the engineer in charge of installation.

7.4 *Sample Identification:*

7.4.1 If samples are to be taken at the job site, follow sample identification of roll according to 7.1.2. Outer layer of geomembrane should be removed before sample is taken following sampling procedures as prescribed in Practice D4354. Cut sample according to specified test method(s).

7.4.2 Identify each sample with a durable, gummed label, or equivalent including, at a minimum, the sample designation, the name of the manufacturer or supplier, product or style number, the lot number or roll number, or both, location sampled or project name or project identification number, sampled by, and date sampled. If third party is responsible for sampling, include with the name, the address and telephone number.

7.4.3 Sample should be packaged in suitable wrapping material for protection from damage due to shipping, water, sunlight, or contaminants.

8. Procedure – Geonets

8.1 *Packaging and Identification:*

8.1.1 When cores are required, use those that have a crushing strength sufficient to avoid collapse or other damage in normal use.

8.1.2 Identify each roll with a durable, gummed label, suitable tag, or equivalent, either clearly readable on the outer wrap or on the inside of the core. Roll identification should include, at minimum, the name of the manufacturer or supplier, product or style number, and the unique roll number. Identification should also include the width and length of the geosynthetic roll. Any other unique characteristics should be clearly identified. For rolls with no identification on the inside of the core, if samples taken, labels on the outer wrap of the roll packaging should be removed and placed inside the roll for traceability. All designations should be readable for clear identification.

8.2 *Receiving and Storing at the Job Site:*

8.2.1 While unloading or transferring the geonet from one location to another, prevent any damage to the geonet. If practicable, use fork lift trucks fitted with poles that can be inserted into the cores of rolls. Be sure that the poles are at least two-thirds the length of the rolls to avoid breaking the cores and possibly damaging the geonet. Slings may be used to carry relatively rigid rolls, provided that the slings do not cause damage to the rolls. Do not drag the rolls as damage may result.

8.2.2 Geonets, when possible, should be stored elevated off of the ground and covered to ensure adequate protection from the following:

8.2.2.1 Ultraviolet radiation,

8.2.2.2 Undesirable chemicals for any extended period of time,

8.2.2.3 Flames, including welding sparks,

8.2.2.4 Temperatures in excess of 160 °F [71 °C] and below 32 °F [0 °C] (see Note 2), and

8.2.2.5 Any other environmental condition that may damage the physical property values of the geosynthetic.

8.3 *On-Site Handling:*

8.3.1 While transferring geonet from one location to another, prevent any damage to the geonet. Follow the cautions specified in 8.2.1.

8.3.2 Before unrolling a roll of geonet at the job site, verify its identification. While unrolling the geonet, inspect it for damage or defects.

8.3.3 Follow all applicable site or project specifications and manufacturer's recommendations for handling and installation.

8.3.4 Correct any damage that occurs during storage or installation as directed by the project specifications and the engineer in charge of installation.

8.4 *Sample Identification:*

8.4.1 If samples are to be taken at the job site, follow identification of roll instructions according to 8.1.2. Outer layer of geonet should be removed before sample is taken following sampling procedures as prescribed in Practice D4354. Cut sample according to specified test method(s).

8.4.2 Identify each sample with a durable, gummed label, or equivalent including, at a minimum, the sample designation, the name of the manufacturer or supplier, product or style number, the lot number or roll number, or both, location sampled or project name or project identification number, sampled by, and date sampled. If third party is responsible for sampling, include with the name, the address and telephone number.

8.4.3 Sample should be packaged in suitable wrapping material for protection from damage due to shipping, sunlight, or contaminants.

9. Procedure – Geocomposites

9.1 *Packaging and Identification:*

9.1.1 When cores are required, use those that have a crushing strength sufficient to avoid collapse or other damage in normal use.

9.1.2 Cover each roll with an opaque wrapping material for protection from damage due to shipment, water, sunlight, or contaminants while being stored or handled in accordance with this guide.

9.1.3 Identify each roll with a durable, gummed label, or equivalent, clearly readable on the roll packaging or on the inside of the core. Roll identification should include, at minimum, the name of the manufacturer or supplier, product or style number, and the unique roll number. Identification should also include the width and length of the roll. Any other unique characteristics should be clearly identified. For rolls with no identification on the inside of the core, once the roll is unwrapped or samples taken, labels on the outer wrap or the roll packaging should be removed and placed inside the roll for traceability. All designations should be readable for clear identification.

NOTE 5—Rolls bundled or strapped as a single unit could be regarded as a single roll for identification purposes, provided all the rolls remain as a single unit received by the end user.

9.2 *Receiving and Storing at the Job Site:*

9.2.1 While unloading or transferring the geocomposite from one location to another, prevent damage to the wrapping and to the geocomposite itself. If practicable, use fork lift

trucks fitted with poles that can be inserted into the cores of rolls. Be sure that the poles are at least two-thirds the length of the rolls to avoid breaking the cores and possibly damaging the geosynthetic. Slings may be used to carry relatively rigid rolls, provided that the slings do not cause damage to the rolls. Do not drag the rolls as damage may result.

9.2.2 Geocomposites, when possible, should be stored elevated off of the ground and covered to ensure adequate protection from the following:

9.2.2.1 Precipitation (because geocomposite roll goods saturation may lead to handling difficulties),

9.2.2.2 Ultraviolet radiation,

9.2.2.3 Undesirable chemicals for any extended period of time,

9.2.2.4 Flames, including welding sparks,

9.2.2.5 Temperatures in excess of 160 °F [71 °C] and below 32 °F [0 °C] (see Note 2), and

9.2.2.6 Any other environmental condition that may damage the physical property values of the geocomposite.

NOTE 6—Geocomposites may contain enough moisture to cause them to stiffen when frozen, which interferes with placement.

9.3 *On-Site Handling:*

9.3.1 While transferring geocomposites from one location to another, prevent damage to the wrapping and to the geocomposite itself. Follow the cautions specified in 9.2.1.

9.3.2 Before unrolling a roll of geocomposite at the job site, verify its identification. While unrolling the geocomposite, inspect for damage or defects.

9.3.3 Follow all applicable site or project specifications and manufacturer's recommendations for handling and installation.

9.3.4 Correct any damage that occurs during storage or installation as directed by the project specifications and the engineer in charge of installation.

9.4 *Sample Identification:*

9.4.1 If samples are to be taken at the job site, follow removal of wrap and identification of roll according to 9.1.3. Outer layer of geocomposite should be removed before sample is taken following sampling procedures as prescribed in Practice D4354. Cut sample according to specified test method(s).

9.4.2 Identify each sample with a durable, gummed label, or equivalent including, at a minimum, the sample designation, the name of the manufacturer or supplier, product or style number, the lot number or roll number, or both, location sampled or project name or project identification number, sampled by, and date sampled. If third party is responsible for sampling, include with the name, the address, and telephone number.

9.4.3 Sample should be suitably packaged for shipping to prevent distortion. Sample should be packaged in suitable wrapping material for protection from damage due to shipping, water, sunlight, or contaminants.

10. Procedure – Rolled Erosion Control Products

10.1 *Packaging and Identification:*

10.1.1 When cores are required, use those that have a crushing strength sufficient to avoid collapse or other damage in normal use.

10.1.2 Identify each roll with a durable, gummed label, suitable tag, or equivalent, either clearly readable on the outer wrap or on the inside of the core. Roll identification should include, at minimum, the name of the manufacturer or supplier, product or style number, and the unique roll number. Identification should also include the width and length of the geosynthetic roll. Any other unique characteristics should be clearly identified. For rolls with no identification on the inside of the core, if samples taken, labels on the outer wrap of the roll packaging should be removed and placed inside the roll for traceability. All designations should be readable for clear identification.

NOTE 7—Rolls bundled or strapped as a single unit, such as a pallet, could be regarded as a single roll for identification purposes, provided all the rolls remain as a single unit received by the end user.

10.2 *Receiving and Storing at the Job Site:*

10.2.1 While unloading or transferring the rolled erosion control products from one location to another, prevent any damage to the product. If practicable, use fork lift trucks capable of safely lifting palletized or unitized goods or fitted with poles that can be inserted into the cores of rolls. Be sure that the poles are at least two-thirds the length of the rolls to avoid breaking the cores and possibly damaging the rolled erosion control product. Slings may be used to carry relatively rigid rolls, provided that the slings do not cause damage to the rolls. Do not drag the rolls as damage may result.

10.2.2 Rolled erosion control products, when possible, should be stored elevated off of the ground and covered to ensure adequate protection from the following:

10.2.2.1 Precipitation, moisture from natural precipitation or other sources (see Note 8),

NOTE 8—Blankets with biodegradable fibers such as straw, wood, wood excelsior, and coconut can rot when wet. These products are typically inventoried indoors, but are subject to environmental conditions upon arrival at project sites.

10.2.2.2 Ultraviolet radiation,

10.2.2.3 Undesirable chemicals for any extended period of time,

10.2.2.4 Flames, including welding sparks,

10.2.2.5 Temperatures in excess of 160 °F [71 °C] and below 32 °F [0 °C] (see Note 9), and

NOTE 9—Rolled erosion control products may contain enough moisture to cause them to stiffen when frozen, which interferes with placement.

10.2.2.6 Any other environmental condition that may damage the physical property values of the geosynthetic.

10.3 *On-Site Handling:*

10.3.1 While transferring from one location to another, prevent any damage. Follow the cautions specified in 10.2.1.

10.3.2 Before unrolling a roll of at the job site, verify its identification. While unrolling, inspect for damage or defects.

10.3.3 Follow all applicable site or project specifications and manufacturer's recommendations for handling and installation.

10.3.4 Correct any damage that occurs during storage or installation as directed by the project specifications and the engineer in charge of installation.

10.4 *Sample Identification:*

10.4.1 If samples are to be taken at the job site, follow identification of roll instructions according to 10.1.2. Outer layer of roll should be removed before sample is taken following sampling procedures as prescribed in Practice D4354. Cut sample according to specified test method(s).

10.4.2 Identify each sample with a durable, gummed label, or equivalent including, at a minimum, the sample designation, the name of the manufacturer or supplier, product or style number, the lot number or roll number, or both, location sampled or project name or project identification number, sampled by, and date sampled. If third party is responsible for sampling, include with the name, the address and telephone number.

10.4.3 Sample should be packaged in suitable wrapping material for protection from damage due to shipping, sunlight, moisture or contaminants.

11. Procedure – Sediment Retention Devices

11.1 *Packaging and Identification:*

11.1.1 When cores are required, use those that have a crushing strength sufficient to avoid collapse or other damage in normal use.

11.1.2 If applicable, cover each roll with a wrapping material for protection from damage due to shipment, water, sunlight, or contaminants while being stored or handled in accordance with this guide.

11.1.3 Each shipment should be uniquely identified.

11.2 *Receiving and Storing at the Job Site:*

11.2.1 While unloading or transferring from one location to another, prevent damage to the wrapping (if applicable), and to the sediment retention device itself. Do not drag the product as damage may result.

11.2.2 Sediment retention devices, when possible, should be stored elevated off of the ground and covered to ensure adequate protection from the following:

11.2.2.1 Precipitation,

11.2.2.2 Ultraviolet radiation,

11.2.2.3 Undesirable chemicals for any extended period of time,

11.2.2.4 Flames, including welding sparks,

11.2.2.5 Extreme temperatures, and

11.2.2.6 Any other environmental condition that may be detrimental to the physical property values.

11.3 *On-Site Handling:*

11.3.1 While transferring the sediment retention devices from one location to another, prevent damage to the wrapping (if applicable) and to the sediment retention device itself. Follow the cautions specified in 11.2.1.

11.3.2 Before use at the job site, verify its identification. While deploying the sediment retention device, inspect it for damage or defects.

11.3.3 Follow all applicable site or project specifications and manufacturer's recommendations for handling and installation of sediment retention devices.

11.3.4 Correct any damage that occurs during storage or installation as directed by the project specifications and the engineer in charge of installation.

11.4 *Sample Identification:*

11.4.1 If samples are to be taken at the job site, follow sample identification according to 11.1.3. Outer layer of product and protective wrapping, (if applicable), should be removed before sample is taken. Follow sampling procedures as prescribed in Practice D4354. Cut sample according to specified test method(s).

11.4.2 Identify each sample with a durable, gummed label, or equivalent including at a minimum: the sample designation, the name of the manufacturer or supplier, product or style number, the lot number or roll number (or both), location sampled or project name or project identification number, sampled by, and date sampled. If third party is responsible for sampling, include the name, the address, and telephone number.

11.4.3 Sample should be suitably packaged for shipping to prevent distortion. Sample should be packaged in suitable wrapping material for protection from damage due to shipping, water, sunlight, or contaminants.

12. Keywords

12.1 geosynthetics; identification; labeling; quality assurance; storage