

Determining the Carbon Black Content in Geonets

The American Society for Testing Materials (ASTM) has two methods for determining carbon black content in polyolefin: ASTM D1603 and ASTM D4218. Both methods are developed and approved by the ASTM Plastics Committee D20

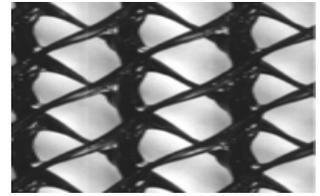
Test Method ASTM D1603 is the “Standard Test Method for Carbon Black Content in Olefin Plastics.” This test method describes the determination of the carbon black content in polyethylene, polypropylene, and polybutylene plastic. The apparatus is a tube furnace with combustion boat placed inside.

Test Method ASTM D4218 is the “Standard Test Method for Determination of Carbon Black Content in Polyethylene Compounds by the Muffle Furnace Technique.” This test method covers the determination of black polyethylene compounds containing channel or furnace black.

Conclusion

Both ASTM D1603 and D4218 can measure the carbon black content of a polyethylene geonet. ASTM D4218 is specifically for polyethylene material, and it is the more efficient test method to setup and run compared to ASTM D1603. Results from these two methods are similar, within 2% difference. Therefore,

GSE uses ASTM D4218 in its Manufacture Quality Control (MQC) test for determining the carbon black content of geonets. Note that ASTM D4218 is also the preferred method of most GSI-GAI accredited laboratories.



[GSE Geonet]

GSE is a leading manufacturer and marketer of geosynthetic lining products and services. We've built a reputation of reliability through our dedication to providing consistency of product, price and protection to our global customers.

Our commitment to innovation, our focus on quality and our industry expertise allow us the flexibility to collaborate with our clients to develop a custom, purpose-fit solution.

[DURABILITY RUNS DEEP] For more information on this product and others, please visit us at GSEworld.com, call 800.435.2008 or contact your local sales office.

GSE
ENVIRONMENTAL™