



Iraq and the Scoop on Sandbags

By Ms. Dana L. Finney

For shoring up a river bank to stem flood waters, the idea is to use sandbags that will eventually disintegrate so they won't have to be retrieved. But when sandbags are going to be used to fortify a base camp in Iraq, they need to stay intact as long as possible. Sandbag materials differ in their resistance to the elements—especially ultraviolet radiation. In response to reports that sandbag fortifications have failed under the intense sunlight in Iraq, the United States Army Engineer Research and Development Center (ERDC) conducted a study to identify which materials maintain tensile strength the longest under ultraviolet radiation exposure. Tensile strength is the property most closely associated with the material's integrity and—when weakened—allows the bags to break, and sand spills out.

In a simulated desert climate, ERDC's Construction Engineering Research Laboratory (CERL) found (through independent, certified laboratory testing) that cotton duck material performs best. Acrylic sandbags also performed well in the study. The complete report with test data is available at <http://www.cecer.army.mil>. For more information, contact Alfred Beitelman or Charles Marsh at CERL, 800-USA-CERL.



Ms. Finney is a public affairs officer for the United States Army Engineer Research and Development Center, Construction Engineering Research Laboratory, Champaign, Illinois.



These sandbags, used for fortification in Iraq, failed due to extreme exposure to ultraviolet radiation.

