

WILL YOUR 30 YEAR OLD GRATING STILL PERFORM?

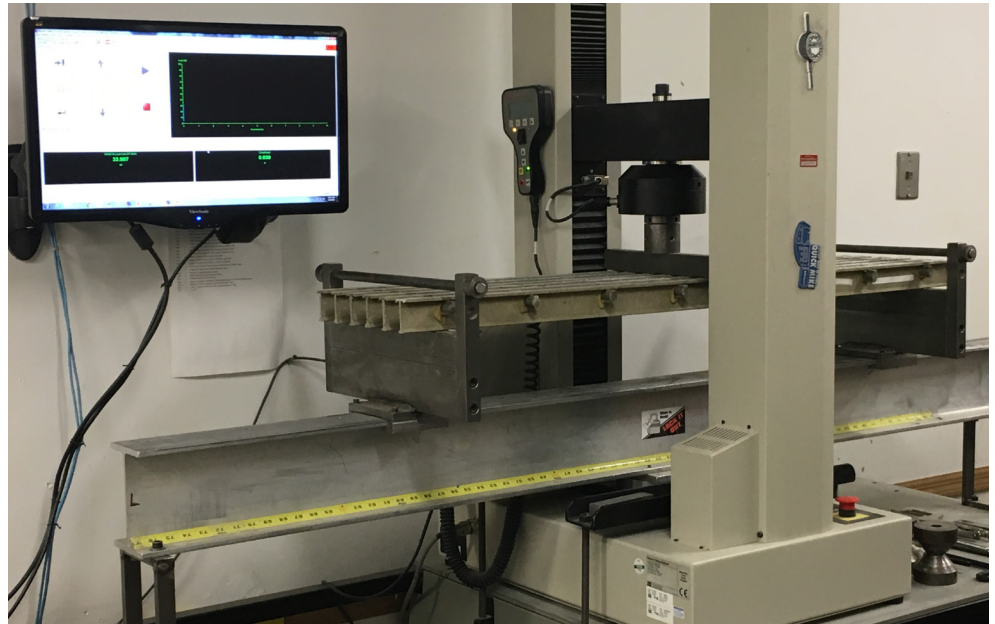
The Westfall Company recently acquired a sample of T-Bar grating from a water reclamation facility which has been in service since the late 1980s. As an effort to study durability, Strongwell and the Westfall Company wanted to see how the grating would still perform against lab testing. Upon initial inspection, the grating was submitted with the original product sticker “AFC, Div. of MMFG” still intact.

Although this particular model of T-Bar grating has been discontinued, it was originally designed with a drip edge. Upon closer examination, the grating showed exposed glass fibers on all sides due to prolonged daily exposure to ultraviolet light and hydrogen sulfide gas. Greg Bond, PE, Structural Engineer, was responsible for the flexural failure testing of the sample.

At the completion of the testing, it was concluded that the grating sample still retained approximately 85 percent of its flexural modulus while outperforming its published maximum load table.

CONCLUSION

Strongwell products, including pultruded grating, have been produced in conformance with quality standards that ensure the products meet, or exceed, published load table values at the time of production. This durability study demonstrates that, in this case, Strongwell’s pultruded grating strength still exceeded industry-recognized, in-service design loads, for a 30-year, and counting, service life, and measured stiffness decreases were negligible. Strongwell’s pultruded grating is a structural alternative to steel and aluminum grating, especially when long-term durability is a concern.



Additional benefits include: fabrication requiring fewer tools, lighter weight, measured strength against impact, measured fire resistance and strength retention at increased service temperatures, and a measured decrease in maintenance. Strongwell has worked to continually improve product strength, durability and impact resistance of its pultruded grating. ●

TECHNICAL DATA

Grating Description:	T-5000 2" vinyl ester fire retardant
Dimensions:	12" x 48"
Test Span:	42"
Test Speed:	0.50 in/min
Load Table Modulus:	4.25 x 10 ⁶ psi
Average Test Modulus:	3.61 x 10 ⁶ psi
Load Table Maximum Load:	6,476 lb
Average Test Peak Load:	7,198 lb



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