

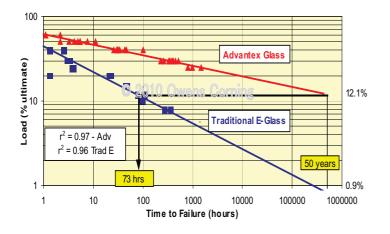


## Composite Applications in Corrosive Environments Made With Advantex<sup>®</sup> Boron-Free E-CR Glass Reinforcements Outperform Traditional E-glass

**Composite Rod Stress-Rupture Testing** - Exposing composite rods to various corrosive environments while under stress provides realistic testing.

## STRESS-RUPTURE TESTING COMPOSITE RODS IN NORMAL ACIDS (HCI - H2SO4)

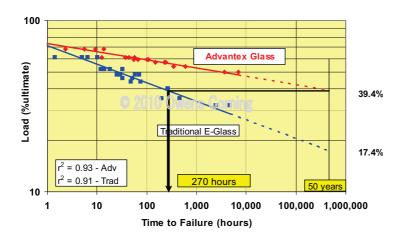
Advantex<sup>®</sup> glass offers a useful stress performance that is 12 times that of a laminate made with traditional E-Glass in acidic applications. Another way of looking at the performance difference is by noting the traditional E-glass laminate would fail in approximately four days when stressed at the 50-year stress limit for the Advantex<sup>®</sup> glass laminate while exposed to a 10% hydrochloric acid environment.



In acidic environments, Advantex<sup>®</sup> glass performance is 12 times that of a laminate made with E-glass

### STRESS-RUPTURE TESTING COMPOSITE RODS IN TAP WATER AND DEIONIZED WATER

Advantex<sup>®</sup> glass reinforced composites significantly outperform composites reinforced with traditional E-glass in tap and deionzed water. The corrosion-resistant Advantex<sup>®</sup> glass formulation provides more than a 50-fold increase in performance when comparing time-to-failure at a given stress level. That is performance you can count on in the field.

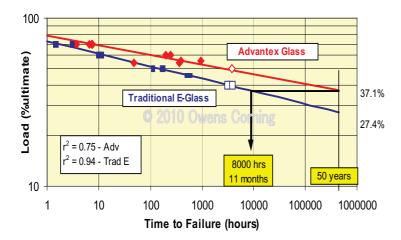


For improved performance, use Advantex® glass when facing water corrosion

# Composite Applications in Corrosive Environments Made With Advantex<sup>®</sup> Boron-Free E-CR Glass Reinforcements Outperform Traditional E-glass

#### STRESS-RUPTURE TESTING COMPOSITE RODS IN 5% SALTWATER

Saltwater is extremely corrosive to steel and aluminum. For composite materials, little effect is found. The creep-rupture performance of laminates in saltwater shows that Advantex® glass reinforced composites perform much better than traditional E-glass composites. The useful stress level of the Advantex® glass composite is 50% higher than that of the composite reinforced with traditional E-glass. There is more than a 50-fold increase in performance when comparing time-to-failure at a given stress level.



Advantex® glass offers a 50-fold increase in performance for composites used in sea water

Source: Owens Corning tests -C. Renaud & M.E. Greenwood: Effect of Glass Fibers and Environments on Long Term Durability of GFRP Composites

TAKE RISK OUT - PUT ADVANTEX® GLASS IN

## THE OCV™ BUSINESSES ARE WORLDWIDE SUPPLIERS

Supporting our customers with the entire Advantex® reinforcement product range including glass fiber, technical fabrics and specialty glass.

Most OCV<sup>™</sup> products are manufactured with Advantex<sup>®</sup> glass today. Ongoing conversion programs are underway in Europe, Asia Pacific and Latin America manufacturing plants while North America plants are already converted 100% to Advantex<sup>®</sup> glass.

#### Contact

Advantex.americas@owenscorning.com North America: +1 614 507 5828 Latin America: +55 19 3535 9316

Advantex.europe@owenscorning.com

Advantex.asiap@owenscorning.com

India: +91 22 6668 1717 S. Korea: +82-54-429-5782

China: +86 571 88130808 - EXT. 5682

Japan: +81 280 92 6049



OWENS CORNING
COMPOSITE MATERIALS, LLC
ONE OWENS CORNING PARKWAY
TOLEDO, OHIO 43659
1.800.GET.PINK™
www.owenscorning.com

www.ocvreinforcements.com

EUROPEAN OWENS CORNING FIBERGLAS, SPRL. 166, CHAUSSÉE DE LA HULPE B-1170 BRUSSELS BELGIUM +32.2.674.82.11 OWENS CORNING – OCV ASIA PACIFIC SHANGHAI REGIONAL HEADQUARTERS OLIVE L.V.O. MANSION, 2<sup>ND</sup> FLOOR 620 HUASHAN ROAD SHANGHAI 200040 CHINA +86.21.62489922

This information and data contained herein is offered solely as a guide in the selection of a reinforcement. The information contained in this publication is based on actual laboratory data and field test experience. We believe this information to be reliable, but do not guarantee its applicability to the user's process or assume any responsibility or liability arising out of its use or performance. The user agrees to be responsible for thoroughly testing any application to determine its suitability before committing to production. It is important for the user to determine the properties of its own commercial compounds when using this or any other reinforcement. Because of numerous factors affecting results, we make no warranty of any kind, express or implied, including those of merchantability and fitness for a particular purpose. Statements in this publication shall not be construed as representations or warranties or as inducements to infringe any patent or violate any law safety code or insurance regulation

Pub. Number# 10012450. Owens Corning reserves the right to modify this document without prior notice. © 2010 Owens Corning.