

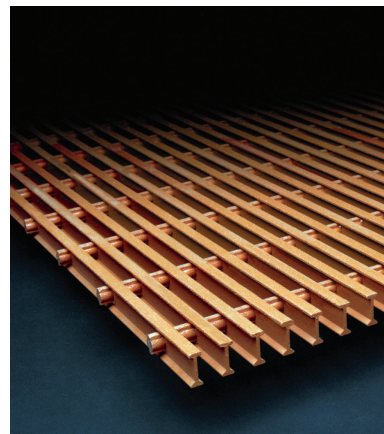
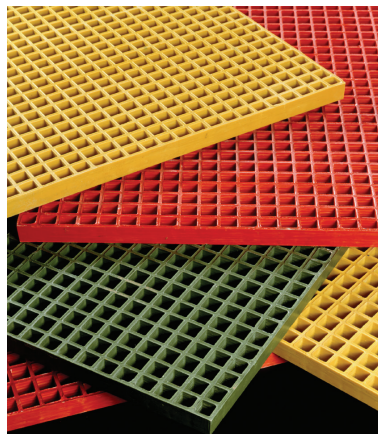
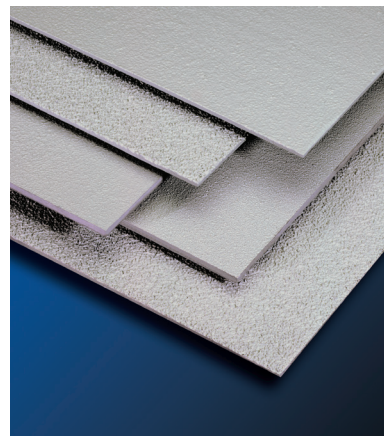
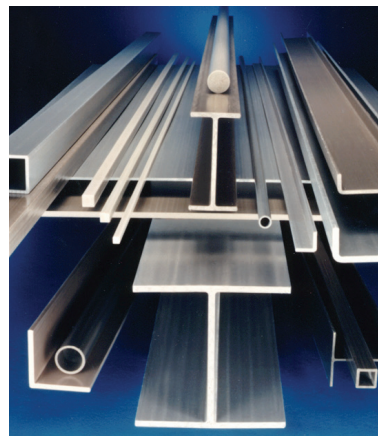
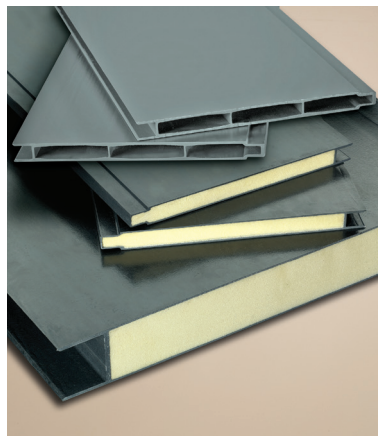
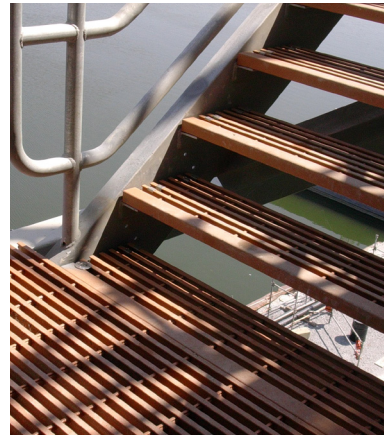
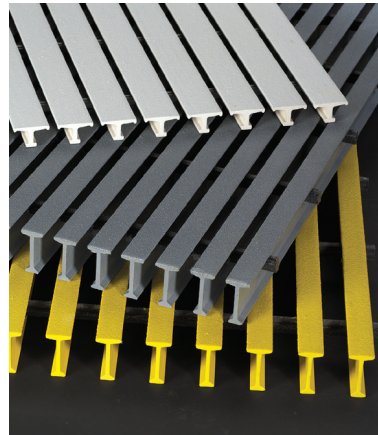


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FIBERGLASS STRUCTURES & SYSTEMS FOR THE OIL & GAS MARKET

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Oil & Gas Products



DURADEK®/DURAGRID® and **DURAGRID® Phenolic** gratings set the standard in FRP grating. With excellent corrosion resistance, light weight and low maintenance properties, the oil and gas industry has been using Strongwell's grating systems to replace traditional steel and aluminum grates for over 35 years.



DURADEK®/DURAGRID®

DURADEK® and DURAGRID® are high strength pultruded bar type gratings that can be designed and used like traditional metal grates but have the inherent benefits of fiberglass. These products are ideal replacements for steel or aluminum gratings in corrosive environments or anywhere frequent grating and walkway replacement costs are unacceptable.

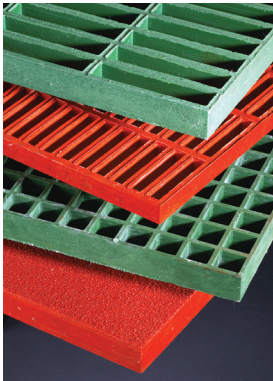
Applications: walkways, general access areas, stair treads, mud tanks



DURAGRID® Phenolic

DURAGRID® Phenolic grating is similar to DURADEK® and DURAGRID® but made utilizing a phenolic resin system to offer superior corrosion resistance, fire retardancy, low smoke and toxic fume emission properties. DURAGRID® Phenolic grating is often the ideal replacement for traditional gratings in an offshore environment.

Applications: walkways, stair treads, USCG Level 2 access areas



Standard **DURAGRATE®** grating has a concave profile on the upper surface for skid resistance. Grit tops and plated tops are optional.



DURAGRATE®

DURAGRATE® molded fiberglass grating is the chemical resistant flooring choice for many industrial applications. The high resin content provides excellent corrosion resistance and requires very little maintenance.

Applications: walkways, stair treads, wave zone



SAFRAIL™ fiberglass handrail systems are available in polyester, vinyl ester and phenolic resin systems. **SAFRAIL™** handrail meets OSHA 1910.23 standards and standard round and square configurations of **SAFRAIL™** are ABS Type Approved.

SAFRAIL™ Guardrail/Handrail

Strongwell offers a broad range of industrial handrail systems under the SAFRAIL™ trade name. These include round, square, and channel-top handrail profiles made using polyester, vinyl ester or phenolic resin systems. Various connection options and numerous custom configurations make SAFRAIL™ one of the most versatile and durable handrail systems available.

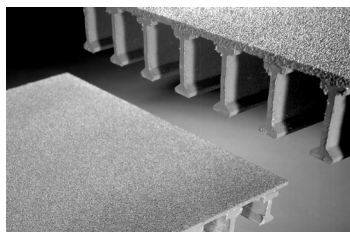
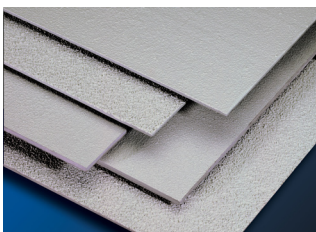
Applications: walkways, stairs, platforms

SAFRAIL™ ladders and cages are fabricated in a standard 18" rung width configuration with 12" rung spacings. Various ladder lengths can be produced as practical. Standard **SAFRAIL™** ladder and ladder cage systems are designed and fabricated to meet the requirements of OSHA 1910.27.

SAFRAIL™ Ladders and Cages

SAFRAIL™ fiberglass ladders and ladder cages are a common sight in a wide range of industries. Fiberglass ladder and ladder cage systems have proven themselves since the 1950's in corrosive environments. Even in complete immersion applications, fiberglass has outlasted aluminum and steel and required little or no maintenance.

Applications: Wall Mount Ladders, Base/Floor Mount Ladders, Walk-Throughs with Returns, Side Mount Cages



SAFPLATE®

SAFPLATE® is available as solid plate or bonded to DURADEK® or DURAGRID® pultruded grating. SAFPLATE® with fine grit is stocked in 4' x 8' panels in standard EXTREN® plate thicknesses of 1/8" and 1/4". Optional plate thicknesses include 3/16", 3/8", 1/2", 5/8", 3/4" and 1" sizes.

Applications: walkways, splash walls, decks, trench covers

SAFPLATE® fiberglass gritted plate is available as either solid plate or bonded to **DURADEK®/DURAGRID®** grating to meet specific loading requirements.



Oil & Gas Products

EXTREN®

EXTREN® is the registered trade name for the 100+ standard pultruded fiberglass structural shapes made by Strongwell. EXTREN® offers the desirable advantages of being lightweight, high strength, corrosion resistant, dimensionally stable and low maintenance compared to traditional materials.

Applications: structures, support systems, platforms, stairways

DURASHIELD®

DURASHIELD® is a tongue-and-groove fiberglass pultruded panel comprised of a pultruded skin over a foam core. Available in 1" x 12" and 3" x 24" sizes, the pultruded fiberglass skin of these panels is available in either an isophthalic polyester or vinyl ester resin. Both resin systems are flame retardant (UL94 VO). The core material is rigid closed-cell urethane foam which provides an insulation "R" factor of 5 (1" panel) and 17 (3" panel).

Applications: walkways, cladding, wind walls, antenna screening, insulated enclosures

DURASHIELD HC®

DURASHIELD HC® is a hollow core panel that is a cost-effective alternative to DURASHIELD® when no insulating values are necessary. DURASHIELD® and DURASHIELD HC® panels can be bonded together with standard adhesives and attached to structural shapes with bolts or screw fasteners. These standard polyester panels will not rot, rust or mildew, which makes them ideal for high moisture environments including saltwater.

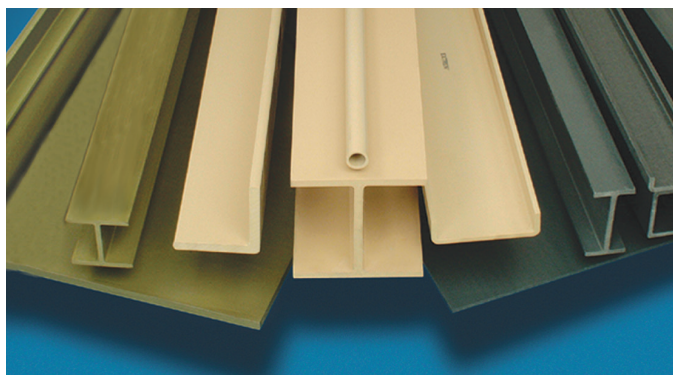
Applications: walkways, cladding, wind walls, antenna screening, non-insulated enclosures

Wave Zone Grating & Guardrail/Handrail

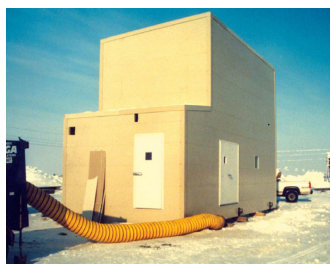
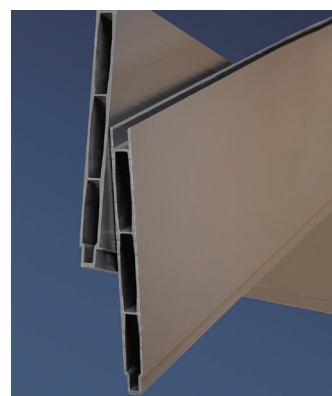
Using DURAGRATE® molded grating or DURAGRID® HD (rectangular bar) pultruded grating, Strongwell has grating options suited for many wave zone applications. These grating options can be paired with specially-designed SAFRIL™ guardrail/handrail to deliver an all-FRP system.

Pipe Sleeves

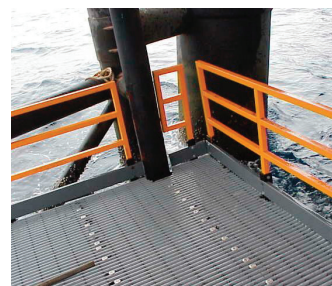
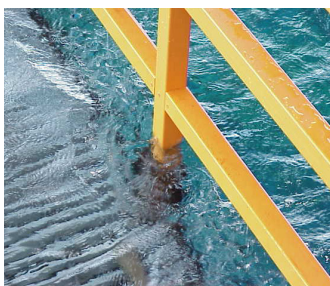
Pipe sleeves are constructed of a durable hand laid fiberglass and polyester or vinyl ester resin in multiple diameters and are easy to install. They are non-corrosive and resistant to offshore saltwater exposure and harsh chemical environments.



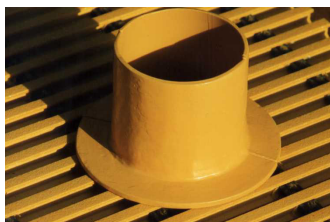
Left to right - **EXTREN®** Series 500 (polyester resin), Series 625 (vinyl ester resin with flame retardant), Series 525 (polyester resin with flame retardant).



DURASHIELD® tongue-and-groove panels are available in 1" x 12" and 3" x 24" sizes. Unlike many traditional materials, FRP gets stronger in colder temperatures. **DURASHIELD HC®** (above right) is the hollow-core version, and is available in a 1" x 12" size.



Wave zone grating and guardrail/handrail require additional design consideration. Please consult with Strongwell when specifying materials intended for these areas.



Custom fiberglass pipe sleeves and cutouts are available for a complete FRP installation.





Product Brochures



Product brochures shown on this page can be viewed as PDF files on Strongwell's website at www.strongwell.com.

To request a copy of product brochures, call the Strongwell Media Center at 276-645-8000 or send an e-mail to mediacenter@strongwell.com.

Strongwell is proud that many of its products bear the approval of numerous certifying agencies, including:



Strongwell oil and gas products are solving problems in literally thousands of specific applications all over the globe. Please call our Corporate Sales Department at 276-645-8000 or visit www.strongwell.com for more information.

GEF Incorporated



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