

# Product Showcase

## Reinforcement

### TUF-Strand SF Synthetic Macro Fibers

Euclid Chemical TUF-Strand SF “structural fibers” are polypropylene/polyethylene synthetic macro fibers that provide equivalent tensile and bending resistance to conventional reinforcement and can be used to replace steel fibers, welded wire reinforcement, and conventional reinforcing bars in concrete. TUF-Strand SF macro fibers work as three-dimensional reinforcement to enhance flexural toughness and impact and abrasion resistance, and help mitigate the formation of plastic shrinkage cracking in concrete. They comply with ASTM C1116 and the International Code Council (ICC) Acceptance Criteria AC32 for synthetic fibers, are UL-certified for composite metal deck construction, and are recognized within ACI 360 and SDI/ANSI-C1.0 as an alternative to welded wire reinforcement. TUF-Strand SF has been used in slabs-on-ground, pavement and white toppings, shotcrete, and precast applications. Dosage rates can range from 3.0 to 20 lb/yd<sup>3</sup> (1.8 to 12 kg/m<sup>3</sup>).

—Euclid Chemical, [www.euclidchemical.com](http://www.euclidchemical.com)



### FR-800-C Rebar Bender Cutter

Fascut's FR-800-C Rebar Bender Cutter can bend a reinforcing bar up to 190 degrees while one end of the bar remains stationary. The compact electric and hydraulic machine plugs into a standard 110 V outlet and will both cut and bend up to and including 1 in. (25 mm) diameter No. 8 Grade 60 reinforcing bars. The 2 in. (50 mm) high bending dies and cutting blades allow users to stack three 1/2 in. (13 mm) diameter No. 4 bars and bend or cut them simultaneously. Users can create uniform bends by setting an infinitely variable angle control that accurately regulates the rotation of the table. Two separate angles can be preset. A foot pedal control and complete bending die set comes standard with the FR-800-C Rebar Bender. An

optional length guide attachment is available for an adjustable reference fence up to 4 ft (1.2 m).

—Fascut, [www.fascut.com](http://www.fascut.com)

### Aslan 100 GFRP Reinforcing Bars

Aslan™ 100 glass fiber-reinforced polymer (GFRP) reinforcing bars manufactured by Hughes Brothers, Inc., are intended for use in concrete structures that are exposed to deicing salts and marine environments; in electromagnetically sensitive applications such as electrified rail, high-voltage substations and duct banks, and magnetic resonance imaging rooms; tunneling and mining; and masonry strengthening and historic preservation. They are impervious to chloride ions and low-pH chemical attack, electrically and thermally non-conductive, weigh one quarter of the weight of steel reinforcement, and have tensile strengths greater than steel. They come as No. 2 through No. 13 reinforcing bars. Design with ASLAN 100 GFRP reinforcing bars is dictated by ACI 440.1R and the American Association State of Highway Transportation Officials' guidelines and authoritative ASTM International standards.

—Hughes Brothers, Inc., [www.aslanfrp.com](http://www.aslanfrp.com)

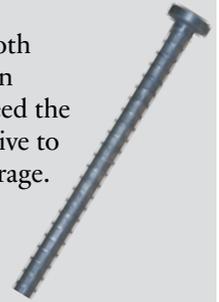


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## HRC 555 T-Head Reinforcing Bar

HRC 555 headed reinforcing bar is a deformed or plain steel bar with a head attached to one or both ends. They conform to ASTM C970. The heads allow the bars to be developed in a shorter length than required for standard hooks when bars are in tension. The head-to-bar connection is designed to exceed the stress and strain capacity of the reinforcing bar. HRC 555 headed reinforcing bars work as an alternative to standard hooks in beam-column connections and footing slabs, flexural bar, shear tie, and pile anchorage. They reduce anchorage length, congestion, and construction time while providing superior performance. HRC 555 headed reinforcing bars can be also used in closure placements and other locations not permitting the length of conventional lap splices.

—HRC, [www.hrc-usa.com](http://www.hrc-usa.com)



## Encapsulated PT System

The AMSYSCO Encapsulated PT System is designed to provide the highest possible level of corrosion protection thanks to watertight encapsulation of the steel strand, anchorage, and all connections. Corrosion protection is ensured by coating steel strands with special high-quality corrosion-inhibiting PT coating (grease) and with high-density plastic sheathing manufactured using a state-of-the-art extrusion process, fully encasing anchorage in an extruded jacket of high-density polyethylene, providing a tightly sealed plastic sleeve fitted on the anchor/strand connection, and filling snapped-on cap with grease to prevent moisture intrusion into the tendon ends. This unbonded post-tensioned reinforcement was recently used in construction of concrete roadways for the Wayzata Bay Center Redevelopment project to mitigate the effects of corrosion within the exposed concrete slab and to minimize the load to the supporting piles by reducing the concrete volume of the slab—decreasing its thickness to 13 in. (330 mm).



—AMSYSCO, [www.amsyscoinc.com](http://www.amsyscoinc.com)

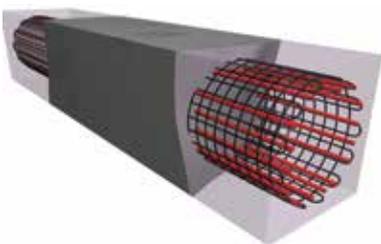
## Taper Threaded Couplers

Lenton® taper threaded products are used for cast-in-place and precast projects. The products incorporate the self-aligning taper thread design to help ensure strength, consistent performance, and reliability. The short length and slim design reduces need for concrete cover and eliminates reinforcing steel congestion. They work in tension, compression, dynamic, and stress reversal applications. In the field, Lenton products quickly and easily connect two pieces of reinforcing steel and improve the steel-to-concrete ratio by eliminating half of the bars necessary in the “lap zone” of a column. The Lenton taper threaded range consists of standard and transition couplers, as well as positional couplers to join bars of any shape, size, and diameter. Weldable and bolt couplers are also available to join structural steel to reinforced concrete. Couplers can be coated to maximize corrosion protection or they can be provided in stainless steel. Available in sizes 10 to 57 mm (0.4 to 2.2 in.)—No. 3 to No. 18.

—Erico, [www.erico.com](http://www.erico.com)

## CarbonCast Piles

CarbonCast Piles with C-GRID® carbon-fiber reinforced polymer (CFRP) grid offer extended life cycle and reduced maintenance and replacement costs through exceptional corrosion resistance. The CarbonCast Pile system incorporates CFRP grid as secondary reinforcement in the hoop direction transverse to the strand encapsulated by structural concrete. This newly patented technology promises to extend the service life of precast concrete bridge piles exposed to coastal and marine environments. Extensive testing of CFRP structures within the industry is currently ongoing in search of the ideal cost effective technology. The CarbonCast Pile system marketed by the AltusGroup® is the company's first major foray into the Department of Transportation and transportation segment.



—AltusGroup, [www.altusprecast.com](http://www.altusprecast.com)