

NSP / CSP

DYNAMIC STIFFNESS with 10 X THE IMPACT RESISTANCE



Features:

NSP / CSP is a unique fiber that is **lighter, stronger, offers ½ the stiffness and 10 X the impact resistance than carbon**. The stiffness can be regulated by fiber orientation to be equal to carbon. NSP / CSP can be stiff or flexible depending upon practitioner preference. NSP / CSP wets out fast because of its high fiber interface and low void content. Translated the resin sticks and air does not get trapped easily.

NSP / CSP does not create any flying fibers and therefore it **ELIMINATES THE ITCH** factor which all practitioners and technicians love.

- Provides great fatigue strength for the socket
- Tested in socket form under ISO guidelines for patients up to 500 lbs
- Available in 3, 4, 5, 6 and 8 inch width & 10 and 50 feet length
- **NSP = WHITE - P/N 4011**
- **CSP = BLACK - P/N 4012**

Crush comparison test. Demonstrating point of material failure. Fig. 1 = CARBON vs. Fig. 2 = NSP

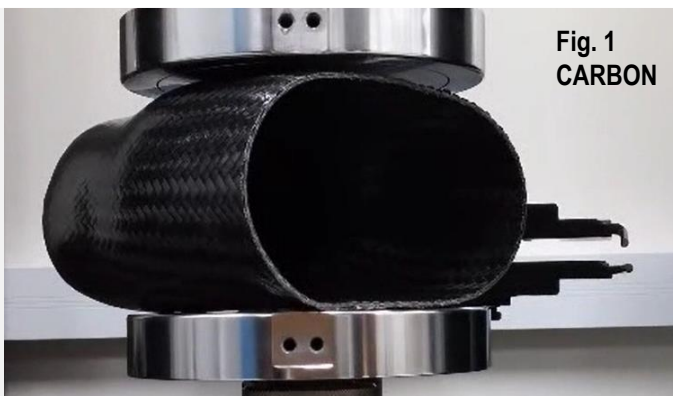


Fig. 1
CARBON



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CARBON

RESULT:
Carbon failed at a significantly lower impact than NSP fiber resulting in socket structure failure

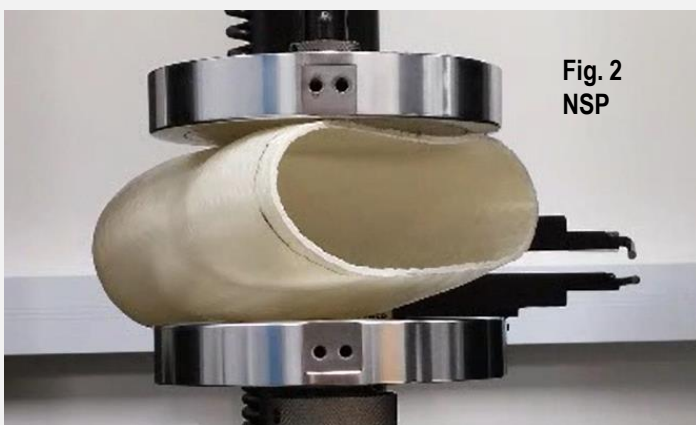


Fig. 2
NSP



Fig. 2
NSP

RESULT: DYNAMIC SOCKET THAT IS LIGHTER AND MORE COST EFFECTIVE THAN CARBON FIBER SOCKET.



FABRICATION SHEET



CSP



NSP

NSP Technical Data

Cutting NSP™ Fiber:

- Before cutting NSP / CSP fiber, tape the edge of the fiber with masking tape then cut down the middle of the tape line.
- Use a scissor with a serrated edge.
- If you attempt to cut NSP / CSP fiber with a smooth bladed scissor, use very sharp scissors then fold the braid over on itself - (doubling up) greatly helps.

Lamination:

NSP / CSP is a high tech strong fiber. It requires a strong resin like 80:20 to contain the fiber when grinding. For the best edging results, the use of Perlon, nylon or 1/2oz Dacron felt is ideal as the first layer and the last layer.

Grinding:

- Use high speed and low pressure.
- Only use sharp abrasives, dull abrasives will create friction and will "burn off" the resin and leave exposed fibers at your edge.

Note: "Burn off" is when the resin heats up with friction and melts or shrinks back, exposing the fiber contents.

Edging Techniques:

(The use of inner and outer finish layers is required. See example TT & TF Layup.)

Finishing edge instructions: Finish as you would any composite by wet sanding using 220 grit and finish with 400 grit wet/dry sanding paper.

EXAMPLE LAYUP for TT and TF:

Example Layup TT:

- 80:20 Resin (or a good resin)
- 1 layer of 1/2oz felt or 2 layers of Perlon or nylon
- 1 layer of NSP or CSP
- 2 layers of Nyglass or equivalent. Reinforce with carbon or NSP uni-tapes as needed
- 1 layer of NSP or CSP
- 2 layers of sheer nylon or equivalent

Example Layup TF:

- 80:20 Resin (or a good resin)
- 1 layer of 1/2oz felt or 2 layers of Perlon or nylon
- 1 layer of NSP or CSP
- 2 layers of Nyglass or equivalent. Reinforce with carbon or NSP uni-tapes as needed
- 1 layer of NSP or CSP
- 2 layers of sheer nylon or equivalent



The NSP material can create incredible color combinations when using pigment.